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CANADA

MEDICAL AND SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Cases of Fibrous Polypi and Fibrous Tumours of the Uterus. By R. P. Howard, M.D., L.R.C.S.E., Professor of Theory and Practice Medicine, McGill College, and one of the attending Physicians of the Montreal General Hospital.

(Read before the Medico-Chirurgical Society on 13th June.)

I have not selected for this evening's paper the subject of Fibrous Polypi and Fibrous Tumours of the Uterus, because that any novelty is attached to it or that I have any original views to announce respecting the origin, symptoms or treatment of such growths, but that having several specimens of these neoplasms in my possession removed at various times I hoped a brief clinical history of them might be of sufficient interest to the society to warrant me in intruding so practical a topic upon the consideration of its members.

A. Fibrous Polypi.—Case I.—In September 1866 I was called to a village 50 miles from here to see an unmarried lady, about 30 years of age, who had been the subject of menorrhagia for a long time, and of intermitting metrorrhagia for several months. She presented a blanched exsanguine appearance, was very weak, depressed in spirits, devoid of appetite, and much emaciated. The pulse was shabby and frequent, and her mental condition nervous and despondent. Iron, ergot, sulphuric and gallic acids, acetate of lead, port wine, etc., had severally

failed to permanently restrain the hemorrhage; yet from motives of delicacy the attending physician had not made a vaginal examination. I at once did so and found a fibrous tumour about the size of a hen's egg, but more globular in form, projecting into the vagina, its upper extremity being tightly surrounded by the os uteri but not continuous with it. She at once accompanied me to Montreal to have it removed. As the vaginal orifice was very small, a piece of compressed sponge was introduced within it and secured by a T bandage the night before the operation, and next day with the able assistance of Drs. Campbell and Drake the growth was removed in the following manner: Chloroform having been administered the growth was seized with a vulsellum, and a loop of broad tape passed over the latter so as to embrace the highest portion of the polypus outside of the uterus—strong traction failed to draw out anymore of the tumour from the uterus, it appeared to be very firmly attached by its upper extremity rather than by a true pedicle—it was rather sessile than pedunculated. Drawing the polypus almost into the ostium vaginæ I divided it close to the os uteri by repeated strokes of a scissors. No hemorrhage followed, although the cut surface, as may yet be seen in the preparation (No. 1), had a circular area about equal to that of a shilling.

No constitutional or local disturbance followed; the patient soon regained her health and has menstruated normally ever since.

The growth is an example of the very dense uterine fibromata and was covered by a thin vascular membrane very like uterine mucous membrane. It was not considered necessary to dilate the os and ascertain the point of attachment of the growth, so that I am unable to determine that fact in its history. Its removal by the scissors illustrates one of the most facile and in many instances the safest as well as the most expeditious methods of removing uterine polypi.

Case II.—Mrs.— from New Brunswick, aged 49 years, consulted me in June 1870 respecting what she had been told was a "prolapsus uteri." She had been married twelve years without issue, and had been for several years subject to profuse menstruation every three weeks and to occasional attacks of severe metrorrhagia. During the year preceding this report these symptoms had increased in frequency and urgency, and several times she had been obliged to procure medical assistance. Vaginal injections of alum had been employed for a long time.

She was a stout, rather fat, and cheerful person, and although very pale, was with the above exception quite healthy.

A pear-shaped firm polypus about the volume of a small-sized hen's egg occupied the vagina, and its pedicle of the thickness of my index finger, could be traced through a large and flabby os uteri to its insertion into the posterior wall of the cervical canal, about an inch above the os externum.

On the 17th June, with the assistance of Dr. Ross, then the House Surgeon of the Montreal General Hospital, I passed the chain of an ecraseur within the cervical canal as close to the uterine attachment of the polypus as possible and slowly separated it. Moderate bleeding from the stump of the pedicle ensued, but under injections of cold water soon ceased. A pledget of cotton wool saturated with a mixture of 1 part of Liq. Ferri Perchloridi Fort. and 4 parts of water was placed within the os against the divided pedicle, and a tampon of cotton wool introduced into the vagina.

The tampon was removed next day—bleeding had not recurred. No constitutional disturbance followed the operation, and no inconvenience was experienced beyond a moderate discharge from the uterus, and for a few days, a slight pain in the right ovarian region. She left for her home quite well on the 3rd July and might safely have done so at an earlier date.

Case III.—Resembles in many respects the one last related but has some interesting peculiarities, more especially in the symptoms which followed the removal of the polypus.

In May 1866, Mrs.—sought my advice with reference to very profuse menstruation of long standing. She was about 46 years of age and the mother of six children, of whom the youngest was eleven years old. A vaginal examination disclosed a slightly patulous os through which the sound detected an intra—uterine growth. A strict observance of the horizontal posture during menstruation, and the administration of ergot and sulphuric acid moderated the monthly loss very satisfactorily and it was agreed to wait for the extrusion of the polypus from the uterine cavity before attempting its removal. On the 24th July following, she experienced uterine pains and felt that a body had descended into the vagina. Visiting her by request the next day, I found a pear-shaped polypus (specimen 3) as large as a large hen's egg in the vagina, and attached by a pedicle of about the thickness of my index finger to the inside of the uterus, upon its interior wall—and at least an inch above the patulous os. On the 28th with the assistance of Dr. Drake, the patient having been etherized, I passed the chain of an ecraseur over the pedicle and within the uterus, and slowly divided the attachment of the growth—no hemorrhage occurred—but on the 3rd March a rigor ushered in a smart attack of metritis attended with offensive discharge from the vagina. This however soon yielded to treatment and she was quite convalescent by the end of the month. Her health became perfectly restored and better than it had been for years.

Two things appear to be worthy of notice in connexion with this case—first, the satisfactory result of palliative treatment while the polypus was yet intra-uterine, and all the more apt to produce obstinate menorrhagia—second, the occurrence of metritis after the careful re-

moval of the polyp by means of an ecraseur. Most persons familiar with uterine disease, must have observed the varying degrees of tolerance of surgical interference with the uterus manifested by different women. In some persons, fortunately they are exceptional, the introduction of an uterine sound or sponge tent, the division of the cervix, the twisting or snipping off of a small glandular polypus, an intra-uterine injection, etc., will be followed by severe pelvic cellulitis or metritis, while other persons, not distinguishable from the former by the most experienced physician, will suffer without any unpleasant sequence, similar and much more severe mechanical interference.

An instructive instance of this kind may not be out of place, more especially as it offers an example of a variety of uterine polypus by no means of infrequent occurrence, although not belonging to the variety which forms the subject of this paper.

Early in 1867 a lady put herself under my care in the following condition. About 34 years of age, she was sterile although married 14 years, and had all that time suffered from very profuse menstruation. She was very feeble and anæmic. Insisting upon a local examination, to which she was much opposed, I found, in addition to considerable hypertrophy of the cervix ("Areolar hyperplasia" of Thomas) and a patulous os, four nabothean polypi (specimen 6) about the size of apple pippins, attached within the cervical canal, and two of those cysts so frequently seen embedded in the lips of the cervix in sterile women. The polypi were snipped off and the two cysts opened with the points of the scissors, and these little operations, practised without violence and even without pain, were followed by a rather sharp attack of pelvic cellulitis which lasted three weeks. The menorrhagia although decidedly improved by the removal of the minute polypi was not altogether cured, and as she was about to visit her friends in Scotland, I advised her to consult when

there Dr. Matthew Duncan to whom I sent an abstract of her case. That gentleman dilated the cervix with sponge, found another small polypus higher up and removed it—severe inflammation followed and she was alarmingly ill for some time.

Here then was a person in whom on two occasions serious inflammation of the pelvic viscera was induced by very trivial operations.

Case IV differs from those previously described in that the neoplasm was completely enclosed within the uterine cavity and as belonging to a class of cases intermediate between true polypi and sub-mucous fibrous tumours—viz: intra-uterine fibroid growths attached by a broad and sessile base but of a polypoidal shape (specimen 5).

For the notes of the case up to the time of the removal of the tumour I am indebted to Dr. Roddick.

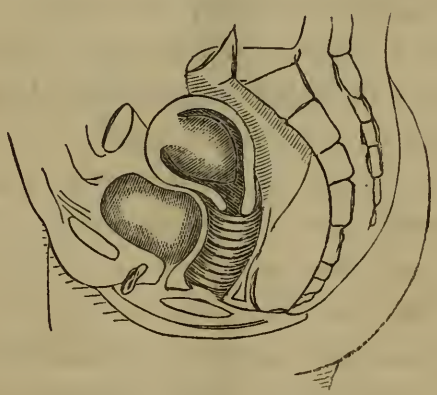
"R. R. aged 30, a tall, dark-haired woman, unmarried, was admitted to the Montreal General Hospital on the 18th December 1872. It was difficult to get a very straightforward story from her, but her history and condition were pretty nearly as follows:—

"She had always enjoyed good health until a year ago when she met with an accident by falling down stairs while serving in a family residing at Murray Bay for the season. This fall was followed by excruciating pain in the back and headache; so intense and persistent indeed, that her mistress becoming alarmed, after a few days sent her to Montreal, when she immediately presented herself at the hospital. While on the way to this city she commenced to '*flood*' and in spite of all treatment lost more or less blood continuously for about a fortnight. No cause could be assigned for the loss although a uterine examination had been made. Slight pain in the back remained after the hemorrhage, and appears indeed never to have entirely left her since. She positively asserts, however, that her menses became quite regular and of moderate amount until a week before admission this time, when a

profuse bloody discharge again commenced accompanied by back, and headache quite as severe as before. She had been troubled with leucorrhœa for years.

"Her condition on admission was that of extreme prostration after hemorrhage, being blanched to a great degree, the pulse frequent and weak, and the appetite entirely gone.

"*Uterine Examination.*—Entire absence of neck of uterus--os extremely thin, and dilated sufficiently to allow of the introduction of the finger as far as the first joint—within was readily felt a body resting immediately against the os, and which gave way to the point of the finger pressed against it. The impression conveyed was that of a polypoid growth appended from some point in the cavity of the uterus. Dr. Howard verified this diagnosis at a subsequent examination."



On the 16th January I introduced a pretty large sponge tent into the os uteri with the view of fully exploring the relations of the growth and removing it if the attempt should appear prudent. Next day the patient having been put fully under chloroform, the tent was removed and the finger passed well up into the uterine cavity. A firm globular tumour, with a broad sessile attachment to the very fundus uteri was easily made out (Figure 1). After some little trouble and with the assistance of Dr. Ross, Braxton Hick's wire rope ecraseur was passed over the growth and its attachments were gradually divided.

Some difficulty was now experienced in delivering the detached tumour from the uterine cavity, and it was not until after I had made two vertical incisions half an inch long at opposite points of the dilated os, that a long and strong pull upon the tumour with a vulsellum at last extracted it. No hemorrhage occurred and the uterine cavity was washed out with a weak solution of iodine.

At the visit the day after the operation the patient presented well marked erysipelas of the right side of the face, apparently commencing in the meatus auditorius which had been the seat of a small abcess for a couple of days previously.

The erysipelatous inflammation gradually extended over the face and head, there was the usual constitutional disturbance of that affection; but throughout its course, no pain was complained of in the abdominal cavity, and the only medication addressed to the uterus was a daily vaginal injection of warm water containing a teaspoonful of Condy's fluid to the pint.

She made a speedy recovery and two weeks after the operation I found the body and cervix of the uterus of about their usual size, but the os somewhat enlarged by the incisions that had been practised upon it.

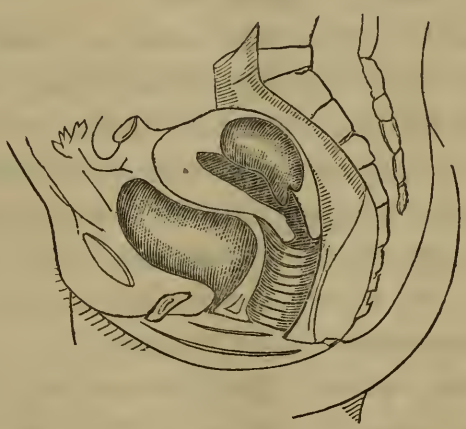
The tumour is a firm almost globular fibrous neoplasm, measuring in its greatest circumference six inches. Its attachment to the uterus was circular and had a diameter of an inch and a quarter as may yet be seen by an examination of the specimen (No. 4).

B. *Fibrous Tumours*—Case V—is an example of a true fibrous tumour of the uterus, an affection very much more common than true fibrous polypus of that organ ; but on the other hand although more common it is less ameable to treatment and its removal involves more troublesome and dangerous operative measures.

Mrs. W., aged 30, has been married several years, is sterile and for nearly the whole period has suffered from profuse menorrhagia, which she attributes to an uterine

tumour; in proof of which she shews me a pickle bottle filled with coagula preserved in spirit, which she regards as expelled portions of the growth.

The uterus is somewhat irregularly enlarged, the *os* slightly patulous and the sound touches a resisting body within the womb. A large sponge tent having been introduced into the os in the evening and removed in the morning, had dilated the uterine mouth sufficiently to permit the detection by the finger of a firm growth embedded in the posterior wall of the uterus, but projecting by one extremity into the uterine cavity so as to form a submucous outgrowth.



The same day, assisted by Drs. Campbell and Drake, I attempted the removal of the tumour by evulsion and enucleation. The patient having been rendered insensible with chloroform, a strong vulsellum was fixed in that portion of the tumour which projected into the uterine cavity and after pulling forcibly for a short time, its attachments suddenly gave way and the growth shelled out as completely and neatly as the kernel of a nut. No hemorrhage followed, and the patient made a speedy recovery without an unfavourable symptom. Her menorrhagia also disappeared and she has enjoyed excellent health ever since—now some five years—but has not conceived.

The tumour as you see (specimen 6) is somewhat pyri-

form in shape and about as large as a hen's egg. The narrow end projected into the cavity of the uterus and about three fourths of the growth including its broad end were embedded in the uterine walls. A thin bed of areolar tissue separated the tumour from the substance of the uterus and permitted of its enucleation ; it was a knowledge of this anatomical feature of uterine fibroids that lead Velpeau to suggest their removal by enucleation, and although the operation is not free from numerous dangers especially when the neoplasms are large and deeply embedded, yet of late years very many such growths have been successfully removed, not a few of them of considerable dimensions.

As it is well known that uterine fibroids are chiefly dangerous through the hemorrhage they induce, more especially when situate beneath the mucous membrane or in the walls of the uterus, and as their removal by excision, enucleation, gouging, etc., is frequently impracticable and always more or less dangerous, I will conclude this paper with a few observations upon a method of curing the hemorrhage which is the sympton that mainly renders these and other uterine growths especially alarming. I allude to Dr. Savage's plan of dilating the os uteri with a sponge tent and injecting the uterine cavity with a solution of iodine.

Case VI.—A few years ago having seen in consultation with Dr. Drake a lady the subject of an interstitial uterine fibroid in the posterior wall as large as a small cocoa nut which habitually caused alarming menorrhagia, I suggested the injection of iodine into the cavity of the uterus and the operation at once checked the hemorrhage. On several subsequent occasions my friend resorted to the same measure with his patient and always with prompt success.

Case VII.—Mrs. F., aged about 36, married several years, but sterile ; had been suffering from severe menorrhagia and metrorrhagia for more than a year and when

first seen by me in November 1870 was very bloodless looking and much reduced in strength. On examination several fibroid tumours were found connected with the uterus. One occupied the anterior wall about midway between the os and fundus and was mainly subperitoneal; a smaller one could be felt through the patulous os embedded in the substance of the womb but projecting slightly into its cavity; and a third was seated high up on the posterior surface of the organ. The sound required some management to introduce it within the uterine cavity owing to the distortion caused by these neoplasms. As the removal of two of these fibroids was not practicable, I confined the lady to bed for several weeks, prescribed ergot in combination with iron and upon several occasions injected the uterine cavity with the iodine solution recommended by Dr. Savage.* By the month of April the tendency to hemorrhage had been quite removed, menstruation had been re-established in moderation at regular periods and the patient's health and strength had been quite restored.

Dr. Savage's advice to dilate the os before employing intra-uterine injections should as a very general rule be followed, and then the alarming symptoms which are occasionally induced by the operation would, if I may rely upon my own experience, be rarely observed. In the following case (VIII) the omission of the preliminary dilatation of the os was the indirect cause I think of the inflammatory symptoms that on one occasion succeeded the injection.

Case VIII.—A colleague requested me to see with him a large fat, and young married woman who had long been the subject of alarming menorrhagia symptomatic of a fibrous tumour which had enlarged the uterus to about the dimensions of that organ in the 5th month of gesta-

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* ℞ Iodi. ʒi, Pot. Iod. ʒii, Spirit: Vini Rect.: ℥ii, Aq. ℥vi.

tion. As a result of the consultation intra-uterine injections of iodine were subsequently employed upon three several occasions. Upon the last occasion symptoms of metritis or of metro-peritonitis succeeded the injection within a few hours. These proved quite serious although manageable, and were followed by phlegmasia dolens. The patient, however, recovered and the tendency to menorrhagia was cured.

I might cite other instances in which uterine hemorrhage has yielded to the injection of a solution of iodine into the uterus, but these must suffice at present. Had the subject received the consideration that in my opinion it merited, in the late able treatises of Dr. Thomas and Dr. Graily Hewitt and indeed in various recent articles upon menorrhagia and uterine tumours, I would not have thought it expedient to have added my testimony to that of Dr. Marion Sims in favour of the efficiency and of the general safety of injections of iodine solution into the uterine cavity for the arrest and cure of menorrhagia consequent upon uterine fibroids, and I can add uterine polypi.

Whether the repetition of these injections at every menstruation for five or six months sensibly reduces the volume of the tumours and in some instances effects their complete removal, I am unable to say. But this view will not appear improbable, when we bear in mind the fact that Sir C. Clarke, Rigby, Ashwell and more recently McClintock, Mathew Duncan and Playfair have recorded cases of removal by *absorption* of fibroid tumours of the womb. It may be that the iodine excites inflammation of the substance of these tumours which, because of their relatively low organization, is followed by fatty degeneration of the inflamed tissue and subsequent absorption.

9 Beaver Hall Hill, 13th June, 1873.

The Ophthalmoscope as a means of Diagnosis in Tubercular Meningitis and the Diseases which simulate it. *

By REUBEN A. VANCE, M.D., New York City.

There are two classes of infantile diseases which from their gravity and common occurrence, deserve more than the ordinary amount of consideration usually bestowed upon such subjects by the general practitioner. One class comprises the acute inflammatory and congestive affections of the brain; the other, the cerebral conditions which simulate these diseases. The former group includes all hyperæmic states and certain disorders which, in addition to the increased quantity of intra-cranial blood, are accompanied by organic changes in the brain or its coverings; while the latter is characterised by an anæmic state of the intra-cranial organs, which in the large majority of cases is secondary to primary disease in other parts of the body.

Prior to the researches of Dr. Marshall Hall † all cerebral disorders accompanied by the symptoms to be alluded to shortly, were ascribed to inflammatory action implicating either the membranes or the substance of the brain—meningitis or encephalitis; in the same manner that before this distinction was drawn all cerebral inflammatory disorders were included under the comprehensive designation of "brain-fever." As greater attention was directed to the symptomatology and pathology of brain diseases, it soon became apparent that affections of the meninges were not only pathologically distinct from those of the cerebral substance, but that their course was different, and that it was often possible to diagnosticate between the two during life. With the growth of the distinction between encephalitis and meningitis on anatomical and clinical grounds, there arose another, based

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* Read before the Medical Library and Journal Association of New York, April 4th, 1873.

† Medical Essays, 1825

upon causation. The simple inflammations were differentiated from those due to diathetic causes. Ordinary meningitis was thus found to be essentially different from tubercular meningitis not only in its origin, but in its progress, fatality and anatomical characteristics.

Under the name of hydrocephaloid diseases, Dr. Marshall Hall described a class of cases which, in many respects, closely resembled inflammatory affections of the meninges, but in which the immediate cause of the symptoms was nervous exhaustion. * This exhaustion of the nervous system, he thought, was commonly due to intestinal irritation, but might arise from general depression of the vital powers, however induced.

Careful observation of the nervous diseases of childhood will show that the distinction drawn by this eminent physiologist is founded upon fact. Among infants a disease closely resembling tubercular meningitis, and only differing from it in that it is much less fatal, and is occasionally preceded by diarrhœa and accompanied by a depressed state of the fontanelles, is quite common, especially during the summer months. In such cases there may be all the external evidences of an inflammatory affection of the membranes of the brain, yet a *post mortem* in a fatal case will show that no such condition is present, while the abdominal organs may, or may not be affected, the only change which can be observed in the brain will be an unnatural diminution in the quantity of blood and an unnatural increase in the quantity of serum.

The great similarity which exists between the symptoms of inflammatory and anæmic conditions of the cerebral organs renders a diagnosis in many cases a matter of grave doubt. The difficulty in diagnosis also leads to irrational treatment, and in many cases especially those due to an exhausted condition of the nervous system and

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* HALL.—Lectures on the Nervous System and its Diseases. Am. Ed. Phil. 1836.

accompanied by cerebral anæmia — the therapeutical measures employed contribute materially to the fatal result.

The characteristics of tubercular meningitis have been studied with great attention by a number of observers, and the literature of this disease will compare favourably with that of any other. The search for some diagnostic peculiarity which would invariably determine the presence of the affection has led to extended research and careful observation, which, although fruitless in that respect, has nevertheless delineated with great clearness and precision, the natural history of the disease. Still, the fact remains that in a given case a physician of skill and experience may be in doubt as to his diagnosis in the patient before him, and no matter how clear the history, or how well developed the symptoms, a subsequent *post mortem* examination may show that his diagnosis was wrong, and his treatment calculated only to injure the patient.

In 1866, Bouchut published his well known work on the ophthalmoscope in diseases of the nervous system, in which he gave the subject of intra-ocular changes in connection with tubercular meningitis a very careful consideration. * He examined fifty-nine cases and observed symptomatic changes in fifty-seven—in one case the observation was unsatisfactory and in another, the diagnosis was doubtful, the patient recovering. Among those who had their attention excited by these astonishing results was the late Professor George T. Elliott, M.D., of this city, who spent a great deal of time in investigating the subject, although he never published anything relating to it. It was mainly through his teachings and precepts that the ophthalmoscope as a means of medical diagnosis, was introduced to the profession in this country.

Since my attention was first drawn to this question, I

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* Bouchut.—Du Diagnostic des Maladies du Systême Nerveux par l'Ophthalmoscope, Paris, Germer Ballure, 1866.

have sought every available opportunity of making ophthalmoscopic observations in cases of suspected brain disease occurring among children. During the past five years I have seen and personally examined twenty-nine cases in which there was reason to suspect grave cerebral disease, and in which the symptoms pointed strongly towards tubercular meningitis. Of this number, although the majority were either my own patients, or cases in which I was called in consultation, yet there were many in which my advantages were due entirely to the courtesy of my professional friends to whom I now desire to renew my thanks.

Of these twenty-nine cases twenty-three proved fatal and six recovered. In each case there was reason to suspect the existence of tubercular meningitis, and in fact in the greater number that was the diagnosis of the attending physician. The symptoms, although varying widely in different cases, were yet similar in the whole series. The ophthalmoscope was used in every instance, and in eleven cases I observed the intra-ocular circulation daily from the commencement to the termination of the disease. The results so obtained are, I think, of value, and may serve as a basis from which to judge the nature, progress, and probable termination of similar cases.

Seventeen of the twenty-nine cases so examined revealed evidences of intra-cranial hyperæmia, while the remaining cases presented indications of encephalic anæmia. Sixteen of the hyperæmic cases died, one only recovering. Of the twelve cases in which the ophthalmoscope demonstrated anæmia seven died, the remainder making good recoveries.

In speaking of the ophthalmoscopic appearances I have referred to them as anæmic and hyperæmic for convenience simply, and not because these terms express the whole truth. While the whole characteristics of these two widely opposite central conditions can be expressed by terms indicative of the state of the intra-ocular vascular

supply, yet it is to be borne in mind that other important phenomena are revealed by the ophthalmoscope. These refer to the nutritive changes manifested in the nerve and retina, some of which are present in the majority of cases, and especially so in those where active inflammatory changes are occurring in the cranial cavity.

The principal alterations in vascularity and structure which can be studied with the ophthalmoscope in tubercular meningitis and the diseases which simulate it are:

1st. Slight congestion of the disk and retina;

2nd. Intense congestion of the disk and retina;

3rd. Intense congestion with œdema of the disk;

4th. Inflammation of the disk and surrounding retina;

5th. Anæmia of the disk and retina.

It is of course necessary that a person desiring to detect morbid changes with the ophthalmoscope should first thoroughly familiarise himself with all the varying and various details of the fundus oculi as they appear in health. The ophthalmoscopic appearances of healthy individuals of different ages and complexions should be carefully studied, while such anomalies as myopia and hypermetropia deserve attentive consideration from the fact that they exert a special and peculiar influence upon the size and appearance of the optic disk, and apparent fulness or emptiness of the discal and retinal vessels. As soon as the observer has attained his idea of the healthy appearances of the intra-ocular structures, and is able to make due allowances for such disturbing influences as the anomalies of accommodation and refraction, he is in a position to carry his researches into those pathological states which are the result of intra-cranial disease.

The ophthalmoscopic appearances of a normal eye are described in all text-books relating to ophthalmoscopy, and can be dismissed here with the single word that while such descriptions may be excellent, they can never, however, convey to the student the clear and exact ideas which he can obtain from a few hours practice with the

ophthalmoscope, under the guidance of a competent instructor.

1st. *Slight congestion of the disk and retina* is that state in which there is over-fulness of the vessels distributed to those structures. The vessels of the disk are augmented in size, and there is a development of branches which were invisible before. The colour of the disk is altered, and in place of its normal creamy-white hue, it will appear of a rosy tint which will vary with the amount of congestion. From the sides of the disk. which in health present no lateral branches of any size, new vascular trunks will be developed, and these trunks may have subdivisions of a considerable size. The veins traversing the retina will be unusually large, their course tortuous and their branches very numerous. The arteries will not be altered to any appreciable extent, but the whole fundus will present a vascular network much larger and more apparent than in health.

2nd. *Intense congestion of the disk and retina* is of a more marked character than the condition just described. It is characterised by an unusual and extreme dilatation of the vascular branches distributed to the intra-ocular structures, and is, essentially, but an increase in the intensity of the appearances before noted. The colour of the disk as a distinctive structure may disappear entirely, and its situation will be known only as the point of convergence of the retinal vessels. From this point numerous lateral branches apparently of the same size as the retinal vessels, in a healthy condition, will be seen, while the disk will be of the same colour as the surrounding choroid and retina. The veins of the retina are dilated and tortuous, and in their course present numerous dilatations resembling hæmorrhagic extravasations, which in reality are but varicose enlargements. These venous dilatations are chiefly situated at points where the main trunks are joined by branches of considerable size. When the congestion becomes extreme, the arteries are enlarged to

twice or thrice their natural size, and occasionally assume an appearance indicative of aneurismal dilatation. The phenomena of intra-pulsation — commonly in the veins, rarely in the arteries—can sometimes be observed, and spots of extravasated blood, especially in the region of the disk are not rare.

3rd. *Intense congestion, with œdema of the disk.*—When extreme degrees of congestion have lasted for a length of time, and occasionally when they are suddenly developed the phenomena of intra-ocular congestion with œdema of the disk may present themselves. This is indicated mainly by changes in the size, colour and transparency of the disk. The intra-ocular portion of the optic nerve becomes swollen and infiltrated. An irregular projection of the disk forward, more marked on one side than the the other, is almost invariably present, and in such cases the adjacent margins of the retina become implicated. From the crimson hue of congestion the disk becomes of a dirty grey colour. Instead of being able to see through the transparent prolongations of the nerve, the observer will view an opaque mass, with rough striations passing to the retina. When intense congestion has preceded this state, in cases that have been carefully watched, a very peculiar change will be noticed in the arteries. In congestion however extreme, when uncomplicated, the trunks of the arteries will be seen enlarged to twice or thrice their natural size, but so soon as œdema sets in, they will decrease to less than their normal diameter. Many branches previously apparent will disappear, and some trunks which can be seen in health, will now become invisible. Along with this diminution in the size of the arteries, there will be an increase in the number and calibre of the veins, the larger branches of which will become varicose. Minute extravasations near the centre of the disk will occasionally be apparent, but hæmorrhages beyond the borders of the optic nerve entrance are rare.

4th. *Inflammation of the disk and adjacent parts of the*

retina—neuro-retinitis—may follow œdema of the disk in the same manner that œdema succeeds intense congestion. In brief, the various degrees of congestion—slight, severe and congestion with œdema—may, and in many instances do, guide that condition which we denominate neuro-retinitis. Yet this rule is not invariable, and the order of succession is no more constant for this anatomical condition than it is for congestion with œdema of the disks. Either condition may occur independently, or succeed one another in the order named. Neuro-retinitis when preceded by œdema of the disks is characterised by a subsidence of the swelling and unilateral projection so characteristic of the latter. The coarse striated prolongations of the optic nerve are obscured by a grayish-white exudation, which may also be observed in the course of the principal vessels. Patches of extravasated blood are now more common, and the outline of the optic papillæ more irregular. The arteries become more prominent than in the latter affection, and the vessels, which in cases of extreme congestion can be seen diverging from the sides of the disk again make their appearance. But when neuro-retinitis presents itself as a primary ocular difficulty, the ophthalmoscopic appearances pursue a different course. The part first affected is the optic disk, and the first change noticed is an increased vascularity of the optic papilla. It is a curious fact that this abnormal vascularity is not general—equally diffused over the disk—but shows itself first at the centre or circumference and then slowly invades the other parts of the nerve-termination. In the majority of cases I have observed this has been at the nasal side of the disk and has slowly extended around the periphery before implicating the porus opticus. The part first implicated becomes exceedingly red, and then assumes a grayish tinge, and as the inflammation progresses, this process can be watched until the whole disk has assumed a mottled appearance. Prior to the implication of the entire disk, the surrounding parts of the retina

are affected, and the retinal vessels become somewhat dilated. The vessels of the sides of the papilla enlarge, and the veins of the retina become varicose. Minute extravasations of blood in the retina, near the disk, are not unusual.

5th. *Anæmia of the disk and retina.*—The contrast between the various conditions just described, and the one to be considered now, is as broad and distinct as can well be imagined. In the former class of cases, we have an increased amount of blood in the intra-ocular structures, either with or without structural lesions; in the present class there is a diminution below the natural standard of intra-ocular blood-supply, and organic alterations are never observed as a consequence of the anæmia. The ophthalmoscopic appearances are as follows: The choroid, disk and retina are observed to light up badly, and some difficulty may be experienced in securing a good illumination. The disk may appear devoid of those vessels which nourish the part in health, its fibrous structure is very apparent, and the lamina cribrosa, from the unusual transparency of the intra-ocular portion of the nerve, shines forth with great distinctness. The arteries are quite small, and many of the retinal branches visible in health, are now invisible. The veins are likewise diminished in size, and many of their branches disappear. The relative size of the arteries to the veins is less than in health, and their diminished size and straight course is quite characteristic of this condition.

After twenty-nine cases which came under my observation, many were seen but once or twice, and I did not have an opportunity of watching the intra-ocular appearances throughout the different stages of the disease. In eleven cases, however, I was more fortunate, and my examinations were repeated daily or every other day, from its incipiency, to the termination of the disease, in each patient. Of this number three recovered and eight died. In the fatal cases, seven presented evidences of intra-ocular hyperæmia, and one of anæmia.

The symptoms were nearly the same in all the cases. Those in which the ophthalmoscope revealed anæmia presented as strongly marked evidences of acute hydrocephalus as those in which the intra-ocular structures indicated inflammatory cerebral disease. It would have been impossible for any one, however skilful, to have discovered anything in the pulse, respiration, temperature or general appearance and behavior of the patients, which would have enabled him to distinguish between the anæmic and hyperæmic cases.

There was but little difference in the duration of the disease in the fatal cases. In none was the period greater than thirty-one days—the case of anæmia dying within twenty-one days from time of attack. In this case the pupils were neither dilated nor contracted, responded readily to light, were alike on the two sides and the ophthalmoscopic appearances were essentially those I have described as characteristic of intra-ocular anæmia.

In the seven fatal cases characterised by intra-ocular congestion, the ophthalmoscopic appearances were not only different in the different cases, but they varied in the same case from day to day. In one instance, when I first saw the patient, the hyperæmia, if there was any, was so slight as not to attract attention, yet on my second visit, a day or two later, there was extreme congestion of the retinæ, with œdema of the disks. This condition persisted until the child died, some two weeks subsequently. In another, neuro-retinitis was well marked at the first examination, and in a third, congestion with œdema of the disks, was the earliest ophthalmoscopic sign that presented itself. In the remaining four cases, three were seen during the stage of intense congestion, one remained in that condition and the other two developed neuro-retinitis, while the fourth, from the stage of slight congestion, in which it was first observed, gradually developed intense congestion, then œdema of the disks, and finally, neuro-retinitis.

The cases which recovered were three in number. Two were characterised by anæmia, and one by hyperæmia. The former were from thirty to forty days in duration and their restoration to health was accompanied by a change in the intra-ocular circulation. From a comparatively bloodless state these parts resumed a normal appearance. The arteries and veins of the retinæ, as also the proper vessels of the disks, increased in size and the fundus oculi assumed a healthy look. The case which had been characterised by hyperæmia was much slower in its progress. Œdema of the disks, with intense congestion of the intra-ocular structures was apparent during the early part of the disease, but during convalescence it gradually subsided, and with recovery, the disks and retinæ lost their abnormal appearance and gradually recovered that of health.

The eighteen cases which were not under my immediate observation during their progress, but were seen only occasionally—some once, others more often—resulted in fifteen deaths and three recoveries. All those which resulted fatally were characterized by hyperæmia, varying in amount from slight congestion to neuro-retinitis. The exact state of each case was not noted, as it was impossible to follow them through the various stages the intra-ocular structures underwent, but it is certain that in none of the fatal cases were there any indications of anæmia. The cases that recovered, or were likely to recover—and in which the fact that they did recover is established beyond the shadow of a doubt—were watched for a length of time, and their history preserved all difficulties. Without exception, these cases were characterised by intra-ocular anæmia. One case was constantly under observation for three months, another for nearly the same length of time, but the third recovered in about eighteen days. In one case only—the third—was there any implication of the abdominal organs, and in all three, aside from the ophthalmoscopic appearances, the evidences

of tubercular meningitis were as strongly marked as in any of the fifteen fatal cases, in a number of which post-mortem examinations revealed the existence of that disease.

The careful observation of cases of tubercular meningitis will frequently reveal a succession of intra-ocular phenomena closely resembling the various forms of hyperæmia and organic changes which have already been described. In fact I doubt if such is not the ordinary course of the intra-ocular changes in the majority of cases. The state of slight congestion marks the incipiency of the disease, and in regular course, we have intense congestion with œdema of the disks. Following this latter condition—one which very seriously impairs the nutrition of neighboring parts—comes inflammation of the disk and retinæ, to be in turn succeeded by what is commonly the sequel of inflammatory changes in such delicate structures—atrophy of the parts involved—a condition foreign to our present enquiry but which is of great importance in connection with the ultimate results of this disease in those rare cases which recover.

The close connection existing between the vascular supply of the brain and the degree of fulness of the intra-ocular vessels, is so well established that its consideration can be omitted. The manner in which organic changes of the disk and retina succeed different varieties of intra-cranial disease, though not so well understood, need not be entered into, as it is not essential to our present enquiry. That the vascular changes in the disk and retina accurately represent those occurring within the cranial cavity and that organic alterations of the intra-ocular termination of the optic nerves, when not due to local disease, in like manner indicate organic changes in the brain, can be accepted as facts, and the question with which we are concerned is : Can we make the information afforded us by the ophthalmoscope of value, in discriminating between the different affections of the brain which

are likely to be confounded with tubercular meningitis, thus enabling us to apply proper treatment in the one class of cases, and to avoid injurious measures in the other?

This question is readily answered, and the answer is in the affirmative. The vascular, œdematous, and neuritic processes which are characteristic of tubercular meningitis are so radically different from the anæmic conditions which accompany spurious hydrocephalus, that, however similar the other signs and symptoms, one glance at the intra-ocular structures with the ophthalmoscope will at once settle the diagnosis. The nature of the disease having been decided, the proper therapeutical measures are likewise indicated. In the one case cerebral vascular excitement has to be subdued; in the other an increased supply of blood has to be sent to the brain. Physiological experiments and clinical observations have demonstrated that certain remedies—such, for example, as the Bromides of Potassium, Lithium, Sodium and Ammonium, the Oxide of Zinc, etc.,—when properly administered, diminish the quantity of intra-cranial blood; while others, of which the preparations of Strychnia and Quinia are leading representatives, under similar circumstances, tend to produce a state of cerebral hyperæmia. The former are indicated in all cases in which the ophthalmoscopic appearances denote cerebral congestion; the latter, when anæmia is present, and neither should be administered for any length of time unless their effects upon the cerebral blood-supply is carefully observed by means of the ophthalmoscope.

Hospital Reports.

Medical and Surgical Cases Occurring in the Practice of the Montreal General Hospital.

Case of Bright's Disease, large white kidney diagnosed. Under the care of John Reddy, M.D. Reported by Mr. W. H. Burland.

Patrick Neale, aged 50, native of Ireland, was admitted into the Montreal General Hospital on the 3rd April, under the care of Dr. Reddy. He is a married man and resides at Point St. Charles. His occupation is that of night watchman, and he is constantly exposed to inclement weather. Up to six or seven weeks ago he was able to attend to his work. He has been rather intemperate, but he says his health has always been good.

About six weeks ago he caught cold, and had a rigor and some vomiting. After two days diarrhœa set in, which has continued off and on ever since. In about ten days after he took sick he noticed his feet beginning to swell.

Present condition.—Very pale and anæmic ; complexion waxy-looking ; heart's action and pulse extremely weak ; very drowsy and inclined to sleep ;tongue smooth and dry ; has a longing to eat, but appetite capricious ; bowels relaxed. On examining the lungs dulness existed under both clavicles and dry crackling was made out with the stethoscope ; his very weak state rendered a careful examination very difficult. There was some œdema of the feet and ankles, but it was not extending much. The urine being examined was found to present the following characteristics :

Reaction neutral or slightly alkaline ; Sp. gr. 1010 ; effervesces slightly with nitric acid, slightly discoloured by boiling, about 40 per cent of albumen. The microscope

shows triple phosphates, free fat globules, a few epithelial scales from bladder, vibriones and a few hyaline casts.

Dr. Reddy considered the case to be one of Bright's disease, in which the large white kidney would probably be found; also considerable tubercular deposit in the apices of the lungs *Post mortem.*

4th April.—He was ordered the following mixture: ℞ Liq. Ammon Acetatis, ℥iij; Syrupi Aurant ℥ss aquæ ad ℥vi misce.

A table spoonful three times a day. He was also given milk diet, with extra milk. He was very weak, pulse 96, respiration 28; and gave an occasional cough; bowels still relaxed.

5th and 6th April.—Still very weak; diarrhœa worse; had a rigor to-day. He was ordered 2 oz. Brandy, and the Mistura Hæmatoxyli.

7th.—Slightly better to-day; bowels not so frequently moved; œdema has not increased, in fact has gone down.

8th.—Diarrhœa not so frequent; passed 48 oz. of urine in the 24 hours, has a feeling of scalding during micturition. Very weak, skin dry and harsh, and extremities cold; vomited in the afternoon, and asked for an egg and some chicken broth to-day.

9th.—Passed 59 oz. of urine since yesterday, pulse very feeble, surface cold.

10th.—Passed 50 oz. urine. Diarrhœa still persists; was ordered the following: ℞ Acid Carbolic, gtt. ij Pulv. Camphor gr. xvi, Pulv. Opii gr. iv, Bismuth Trisnit gr. xxxvj, ft. mass. in pil. xii div. One every fourth hour.

12th.—Passed 32 oz. of urine. Condition much the same. Diarrhœa not quite so frequent.

13th.—Passed only 8 oz. urine since yesterday.

14th.—Has neither eaten, passed water, nor had a motion to-day; pulse very weak and thready; sleeps a great deal, evidently sinking. Died at 4 P. M. Autopsy, 20 hours after death. Rigor mortis well marked. Thorax; surfaces of pleura on right side adherent in several places; apex of

right lung puckered and containing several small masses of yellow tubercle; lower part of upper and part of middle lobe consolidated and filled with exudation; lower lobe partly consolidated and much congested. Yellow tubercle at apex of left lung; rest of lung crepitant and healthy. Heart small, mitral valves somewhat thickened, other valves healthy.

Abdomen—left kidney, large, pale and smooth externally, weight 11 oz. Right kidney, weight 10 oz. Both slightly mottled with dirty white, in patches; capsule thin and not adherent, cortical portion much increased and entirely changed in structure, quite white and cutting like bacon.

Liver, 3lbs. 10 oz. surface slightly roughened. Pale but otherwise healthy. Spleen very small, capsule adherent to diaphragm and surrounding organs, very small and hard, and of a dark red color, when cut into, cuts like a potato.

Case of Cirrhosis of Liver. Under the care of Dr. Reddy.
Reported by DR. CHIPMAN, Assistant House Surgeon, Montreal General Hospital.

Richard Warner, aged 38, native of England, was admitted into the Montreal General Hospital on the 9th June, under the charge of Dr. Reddy, suffering from dropsy. He is of medium height, rather sallow complexion, with puffy features, and has considerable abdominal effusion. Lately he has been employed in the gas works. He was formerly a soldier and has been in India; he confesses to have used spirits but not to excess.

While in India he had fever and ague for four months. He has never had rheumatism or syphilis.

About 16 months ago, he first noticed his belly beginning to swell, and notwithstanding treatment it has gone on increasing.

He has never had jaundice or hæmatemesis or melæna. On admission, his appetite was fair, tongue pretty clean,

bowels open once a day, motions rather dark, urine scanty and high colored ; conjunctiva not yellow, has slight œdema of feet, suffers from flatulence but has no pain over liver or in right shoulder.

On examination, the lungs were found to be pretty clear on percussion, a few muco-crepitant râles being heard behind. Heart sound, normal ; the upper border of the liver corresponded to the 7th interspace, the lower was not distinctly made out, but the liver was evidently diminished in size. Fluid was distinctly made out in abdominal cavity ; the measurement on a level with the umbilicus was 38 inches.

There was also some œdema of the feet and ankles. He had a slight cough but little or no expectoration.

He was ordered milk diet and beef tea, and put on Infus. Digitalis with Potass Acet.—also the Pulv. Jalap. Co : ʒss. every 6 hours till the bowels were well opened.

The urine was examined for the bile pigment with nitric acid, and for the bile acid, with sulphuric acid and sugar. The tests, however, were not very characteristic, there was a trace of albumen—sp. gr. 1014.

10th. Much the same ; pulse rather weak.

11th. The bowels have been well opened.

14th. There is no diminution as yet of the dropsy. Ung. Hyd. Biniod. was ordered to be rubbed over the liver.

16th. To-day he complains of sore throat, but nothing of importance was found on examination. He is very feverish however, and his temperature, this morning was 105, pulse 120, respiration 28. Evening, P. 120, T. 103, R 28.

17th. Complains of pain in the chest this morning, has more cough and his breathing is much oppressed. Pulse 130, Resp. 46, T. $103\frac{3}{5}$.

Muco crepitating râles heard over chest posteriorly—is much weaker—was ordered 4 oz. gin and stupes to chest.

Evening, 7 P. M., — Resp. 40, Temp. 103, Pulse, 130 ;

very weak, extremities cold and breathing very much oppressed ; lips blue.

While seeing another patient up stairs, the nurse came to say he was choking, and going to see him I found he had just ceased to breathe.

P. M.—On opening chest it was found to be partly filled with fluid, lungs healthy but partially collapsed, a very strong adhesion was found between pleura and chest. Some spots of atheroma with a few vegetations round the aortic valve, wall of left ventricle slightly thickened, heart otherwise healthy.

On opening abdomen several pints of clear serum were found—the liver which weighed 2 lbs. 10 oz., was of a yellowish color, very firm and presenting numerous nodules all over its surface—when cut into it was very hard and brawny, and presenting the mottled, granular appearance characteristic of Cirrhosis. The spleen was enlarged, and weighed 1 lb. 12 oz.

The right kidney weighed 6 oz., left 7 oz., they were congested but not structurally diseased.

Case of Mitral Valve disease—right hemiplegia—pleuritic effusion into left side of chest—considerable pericardial effusion—absorption of effusion and partial recovery from hemiplegia. Under the care of Dr. Reddy. Reported by DR. CHIPMAN, Assistant House Surgeon, Montreal General Hospital.

M. S., A pale, sickly looking man, below medium height, was admitted into the Montreal General Hospital on the 17th April, suffering from shortness of breath and loss of power on right side of body.

History. — Parents both dead, cannot say of what disease. He is a file-cutter by trade and came to the States some six years ago ; before that his health he says was quite good.

Has always been temperate, has never had syphilis. Has never had inflammatory rheumatism or any affection of the joints. For five years past he has suffered from shortness of breath, which he says came on gradually, and though it interfered with the performance of his work at the time, he did not lay up. Up to the 17th March last, he was working at his trade though he had consulted Dr. Gardner of this city several times. The dullness to be hereafter described was then present in the chest, but he cannot give any account of an acute attack of pneumonia or pleurisy.

About a fortnight before his admission at 4 A. M. his friends were called up to see him and found that he could not speak, so that they could understand him and that he had no power in his right hand or leg. He had no fit of any kind that he is aware of. The difficulty of speech lasted for several days, but on admission to the Hospital he could be understood.

On admission his mouth was drawn to the left side, the right eyelid could not be firmly closed and the wrinkles on that side of the face were not so well marked, the tongue when protruded was directed to the right side. He could not raise his right arm or move his fingers, he could move his toes and raise his leg slightly when in bed. He felt very weak, his expression was anxious, eyes heavy, pupils rather large but equal, pulse 100, and weak, breathing oppressed, both legs were somewhat œdematous.

On examination, the following condition of things was made out. In front percussion was clear in the clavicular and most of the infra-clavicular regions, on both sides, auscultation afforded no evidence of any disease of the lungs in that situation. The left side of the chest was dull from the commencement of the mammary region downwards.

Besides the normal precordial dullness the percussion note was dull over an area commencing at third interspace

on the left side and extending below midsternum, — horizontally extending from about two inches beyond the sternum on the right side to the commencement of the left axillary region.

On examining the heart, a loud systolic murmur was heard at the apex, and more marked at the ensiform cartilage. The murmur was also heard up the sternum as high as second right cartilage, not at second left cartilage; also distinctly at fourth right cartilage. It appears to mask the second sound at the apex.

The murmur was supposed to be mitral. The heart's impulse appeared to be at ensiform cartilage, where also quite a thrill was experienced on placing the hand over that situation.

Behind.—The left lung was dull as high as the commencement of the scapular region, right side clear, feeble breathing heard on left side, and muco-crepitating râles heard over lower lobe of right lung ; these râles were also heard over right lower lobe in front. The heart sound could be made out on left side behind, without any murmur. The murmur was, however, distinctly made out on right side behind, on a level with fourth dorsal vertebra.

He was put on milk diet, with beef-tea, and ordered the following mixture :

℞ Potass acet. ʒii, Infus. Digitalis ʒiii, Tinct. calumb. ʒi. Aq. ad ʒvj. A tablespoonful every four hours, and also 4 oz. wine. Apl. 23. Pulse 96, raised his right hand a little from the bed this morning.

Both sounds of the heart were distinguishable at the pulmonary cartilage to-day and were free from murmur in that situation. Coarse crepitating râles were heard in the upper part of the left lower lobe behind. Those on the right side behind have nearly disappeared.

24th. Slept well last night ; pulse 100.

25th. Pulse 92, respirations 32, appetite improving. Can move his arm a little.

26th. To-day he can raise the arm a little from his

side, tongue clean, bowels regular, pulse 90, resp. 28. On examining the chest to-day a well marked to-and-fro friction sound was heard about an inch above left nipple, midway between it and the sternum. The line of dullness which formerly extended to two inches beyond the sternum now corresponds to the right edge of the sternum.

27th. Pulse 92. Sleeps and eats well.

28th. The range of dullness in front is still less, the extreme border corresponding to a line drawn ¼ inch to inside right border of sternum, and a friction sound still heard ; it also appears to be present at apex of heart and to occupy part of the time of the murmur.

29th. Improving every day, appetite good, ordered a chop.

May 4th.—The friction murmur has disappeared. His general health has very much improved, he can walk now and is allowed to get up.

6th.—Had some slight diarrhœa yesterday, for which Pulv. Cretæ Co. cum Opio. was given.

8th.—The diarrhœa has stopped, he gets up every day now. He can raise his arm but can scarcely move his fingers yet.

12th.—The paralysis remains much the same, he can raise his arm and move his finger slightly, the tongue is still protruded to the right and the face slightly drawn.

He sits up every day, and eats and sleeps well, ordered tonic.

16th.—The chest was examined to-day. The area of cardiac dullness is now nearly normal, the murmur is still present but is not quite so rough ; œdema of legs gone.

23th.—Area of precordial dullness normal, murmur as before, dullness behind still present but does not extend so high ; respiratory sounds returning.

No crepitant râles heard posteriorly.

June 4th.—Area of precordial dullness normal; murmur as before. Slight dullness on left side, can raise arm to head, general health greatly improved.—Left Hospital.

CANADA

Medical and Surgical Journal.

MONTREAL, JULY, 1873.

ONTARIO MEDICAL COUNCIL ANNUAL MEETING.

The Ontario Medical Council held their annual meeting on the 25th ultimo, in Toronto and continued in session three days. The following gentlemen were elected office-bearers for the ensuing year :

Dr. William Clarke, of Guelph, President,

Dr. John Muir, of Merrickville, (Eclectic), Vice-President,

Dr. Aikins, of Toronto, Treasurer.

Dr. Pyne, Registrar and Secretary.

The meeting was largely attended both by the territorial representatives and the school men as well as by the homœopathic and eclectic representatives.

The business of the meeting was chiefly taken up by the adoption of amendments to the present medical act. The bill as reported is as follows, we copy from the Toronto *Globe :*

ONTARIO MEDICAL ACT.

On motion of Dr. Campbell, the Council went into Committee of the Whole on the Act to amend the Ontario Medical Act. Dr. Fields took the chair.

The first clause, by which the corporate power was increased, was passed.

The third clause, which was as follows, was carried :—

The following shall be added to section 12 of the said Act as sub-section 3 :—3. In cases of doubt or dispute as to the legality of the election of any member of the Council, it shall be lawful for the Council to hold an inquiry and decide who is the legally qualified member of the Council, and such person shall be, and be deemed to be, the member legally qualified, and if such election shall be found to have been illegal, the Council shall have power to order a new election.

In place of the fourth clause, Dr. Brouse moved that the time for the first meeting of the new Council should be fixed by the retiring Council. Motion was carried.

The fifth section was struck out, as the object was met by the previous clause.

With regard to the sixth clause, respecting the transfer of voters from one class to another,

Dr. Clark thought it should be made more definite, so that the voter could vote only in the class in which he was last registered. The clause having been amended, it was passed.

Clause 7, amending section 18 of the existing Act, respecting the appointment of Registrar and Treasurer, was passed with verbal amendment.

Dr. Campbell said it was suggested by Parliament that the Bill, instead of being called an Act to amend the Ontario Act, should be entitled the Consolidated Ontario Medical Act.

Dr. D. Clarke said the Council should thoroughly consider the Bill and make it as perfect as possible, because it would be final during the life-time of most of those present.

Clause eight was as follows :—

(2) The Council shall appoint annually from among its members an "Executive Committee" to take cognizance of, and action upon, all such matters as may be delegated to it by the Council or such as may require immediate interference or attention between the adjournment of the Council and its next meeting; and the action of such Executive Committee upon all matters so delegated to it, or so requiring immediate interference or attention, shall be as legal and binding as if it were the action of the Council itself in session; and the Executive Committee nominated by the Council at its last session, shall be held to be, and to have been, an Executive Committee within the meaning of this Act.

Dr. Dewar moved that the word "may" should be inserted instead of the word "shall."

Dr. Campbell pointed out that both words would be equally binding.

The motion was withdrawn.

Dr. Lovell thought the whole responsibility should devolve upon the President.

The President said the Council would not get a professional man to act as president and assume the responsibility proposed and give up the time necessary.

Dr. Dewar moved that the Committee consist of the President and three members of the Council, to be selected by the President.

The Committee arose, reported progress, and asked leave to sit again.

The Council adjourned.

AMENDED MEDICAL ACT.

They took up the provisions of the Bill *seriatim*, commencing at the point where they ceased last night. The first under consideration was the following :—

The following shall be added as a sub-section to section eighteen of the said Act :—

(2) The Council shall appoint annually from among its members an "Executive Committee" to take cognizance of, and action upon, all such matters as may be delegated to it by the Council or such as may require immediate interference or attention between the adjournment of the Council and its next meeting; and the action of such Executive Committee upon all matters so delegated to it, or so requiring immediate interference or attention, shall be as legal and binding as if it were the action of the Council itself in session ; and the Executive Committee nominated by the Council at its last session, shall be held to be, and to have been, an Executive Committee within the meaning of this Act.

The following shall be read as part of section nineteen of the Act hereby amended, and at the beginning thereof :

In each of the Territorial Divisions described in Schedule C of the Act hereby amended, there shall be established a "Territorial Division Medical Association," which may be briefly called the "Division Association" of such division ; Every member of the College of Physicians and Surgeons of Ontario resident within the said Territorial Division shall be a member, and the Representative in the Council of such Division, shall be *ex-officio* Chairman of such Division Association.

(2) The Council shall have the power to make by-laws for the organization and management of the said Division Associations, which Associations shall likewise have power, if deemed expedient, to establish Branch Associations in their Divisions in affiliation with them, and to enact by-laws concerning all matters pertaining to the medical profession within their several Divisions; pro-

vided always that no by-law so passed shall take effect until it has received the approval of the Council, signified by the seal of the College, and by the signature of the President thereof, being appended to it ; and the Council shall at all times have the power to enact by-laws to take effect in any Territorial Division in Ontario, any by-law of the said Division Associations to the contrary notwithstanding.

(3) The said Division Associations may appoint a Board of Examiners to examine into the qualifications of females wishing to practise Midwifery within their several Territorial Divisions, and, upon satisfactory proof of competence and upon the payment of such annual fee as may be approved of by the Council, to grant annual licenses to such females to practise Midwifery within their own division only, such annual license being liable to be cancelled or suspended by the Association upon proof of misconduct or incompetence on the part of the female holding such license. And no female, while holding the license aforesaid, shall be liable to any of the penalties imposed by this Act, for the practice of Midwifery within the Division for which she holds such license.

(4) The said Division Associations may from time to time submit to the Council a tariff, or tariffs of professional fees suitable to their Division, or to separate portions of theirDivision, and upon the said tariff or tariffs of fee receiving the approval of the Council, signified by the seal of the College and by the signature of the President thereof being appended thereto, such tariff or tariffs shall be held to be a scale of "reasonable charges" within the meaning of section thirty-one of the Act hereby amended, for the Division, or section of Division, where the member making the charge resides.

(5) Each Division Association shall appoint, subject to the approval of the Council, a public prosecutor, who shall cause prosecutions to be instituted in the name of the College, against any one acting in contravention of the provisions of this Act; and it shall be the duty of the prosecutor so appointed to make a return to the Registrar of the College, at such times as may be determined by the Council, of all prosecutions under this Act ; and the said prosecutor shall cause to be transmitted, without delay, to the Registrar of the College all moneys which may be recovered as fines, forfeitures, annual contribu-

tions, or which may lawfully form part of the general funds of the College.

(6) It shall be lawful for the Council from time to time, to grant aid as may be deemed expedient towards the payment of the expenses of the several Division Associations.

After some discussion the clause was amended by erasing sub-section I, and inserting the following :—

"The President shall appoint three members, with himself, to constitute an executive committee, but such committee shall not have power to alter, repeal, or suspend any decisions or enactments of the Council, unless especially authorized by the Council so to do; provided always that the acts of said committee shall be valid only until the next examining session of the Council."

Sub-section III was also amended as follows :—In the first line an alteration was made by altering it so as to read :—"The said Division Association shall have it in their power," &c.

Dr. McDonald movéd, in amendment to section V, that no public prosecutor be appointed, but that the prosecutions take place in accordance with the Summary Proceedings Act.

The motion of Dr. McDonald was carried, and the clause as amended was adopted.

On clause IX, which was as follows :—

"Section twenty-two of the said Act is amended by striking out the words 'not exceeding ten dollars' in the fifth line. and inserting the words : 'to be fixed by by-law of the Council' in lieu thereof; and at the end of the said section twenty-two, the following words shall be added :—'Provided always that the Council shall have power in special cases to reduce the charge for registration when it may be deemed expedient.'"

All after the word "thereof" was struck out.

The following is clause X, as amended, sub-sections six and seven having been struck out :—

"Section twenty-three of the said Act is amended by adding after the words 'holding certificates in Ontario' in the twenty-fifth line of the said section the following words :—

"'Provided also, that it shall be lawful for the Council to admit to registration all such persons as are duly registered in the medical register of Great Britain, or are otherwise authorized to practice physic, surgery, and mid-

wifery in the United Kingdom of Great Britain and Ireland so soon as it shall appear that the same privilege is accorded, and upon similar terms, in the United Kingdom of Great Britain and Ireland to members of the College of Physicians and Surgeons of Ontario.'

" And the following shall be sub-sections four, five, six, and seven of section twenty-three of the said Act :—

" ' (4) From, and after the passing of this Act, each member of the College shall pay to the Registrar, or to any person deputed by the Registrar to receive it, a contribution of not less than two dollars nor more than five dollars, as may be determined by the Council in each year towards the general expenses of the College, which contribution shall be payable on the first of January in each year, and that it shall be in the power of the Council to make such arrangements as will facilitate the collection of such contribution, either by imposing a fine in default of payment, or in such other manner as may seem expedient; and such contribution, and such fine, shall be deemed to be a debt due by the member to the College and to be recoverable with costs of suit in the name of the College, in the Division Court of the division where the member in default resides.

' (5), The contribution for the year one thousand eight hundred and seventy-four, is fixed at dollars, and shall be payable to the Registrar, as aforesaid, on or before the first day of May, in said year, on pain of such fine as the Council may determine, if not paid before the first day of July in said year.' "

Clause XI was adopted without amendment, as follows :—

" Section twenty-four of the said Act is amended by striking out all the words after the words 'Kingdom' in the seventh line of the said section, and substituting the following words in lieu thoreof : 'at such times and in such manner as the Council shall by by-law direct.' "

The Council then adjourned.

The report of the Finance Committee was submitted and duly received. From this it appeared that after settling all indebtedness about $550 remained, and the Committee recommended the payment of $5 per day to each member attending the present session together with travelling expenses.

EVENING SITTING.

The President took the chair at 8 p. m.

REPORT OF COMMITTEE ON REGISTRATION.

Dr. Campbell presented the following Report of the Committee on Registration :—

The Committee of the Council of the College of Physicians and Surgeons upon Registration beg leave to report that they met in the Executive Committee Room of the Registry-Office of the College, on Friday, 27th June, 1873. Present: Drs. Lawrence, Bethune, Dewar, Bogart, and Campbell; Dr. Campbell in the chair. The Registrar submitted a statement showing that 89 students had been entered on the register. The number of matriculants on the student's register is now 406. 57 names have been added to the number of registrations since last report. The names of 32 members have been removed by death since the period when the registration of medical practitioners commenced in this Province. Also 39 persons have availed themselves of the opportunity of obtaining the diplomas of membership recommended by the Registration Committee last year.

Dr. Edwards moved, seconded by Dr. Bethune, that the report be adopted.

Dr. Dewar moved as an amendment that the report be received and that the Council go into Committee of the Whole on the report. He wanted to know how many matriculated students there were who did not hold a diploma from the College of Physicians and Surgeons of Toronto.

After some conversation the information required was promised to be furnished to Dr. Dewar.

Dr. Pine said that 415 students had matriculated altogether ; 88 since he had been registrar.

COST OF EXAMINATIONS.

Dr. Bethune moved, and Dr. Lawrence seconded, the following resolution :—"That in view of curtailing the expenses connected with the examinations ordered by this Council, that the examination papers be printed, and that the Registrar and President be appointed to supervise the examination until the written examinations, and then that the examiners meet, examine the papers, and finish the examinations." By so doing a large sum would

be saved to this Council, and the examinations most efficiently conducted.

Dr. Berryman objected.

Dr. Hyde said the resolution was out of order.

The Chairman ruled that the motion was out of order.

Dr. Bethune withdrew his motion.

Dr. Dewar moved, and Dr. Hyde seconded, the following resolution :—" That this Council beg to insist on the absolute necessity of the Examining Executive Committee, with reference to the carrying on of the examinations in as economical a manner as possible."—Carried.

A VOTE TO DR. CAMPBELL.

Dr. Berryman remarked that it was said that the lion often lies down with the lamb—(laughter)—and this was his arrangement. He moved, seconded by Dr. Dewar, the following resolution :—" That during the past year much labour has been entailed on the shoulders of the late Vice-President, Dr. Campbell, in organizing many details of the proposed amendment to our Medical Act that the non-passage of such amendment was due to certain circumstances over which the Committee, along with Dr. Campbell, had no control ; but still the thanks of this Council are due to Dr. Campbell for his many and assiduous labours."

Carried—Dr. Aikins objecting to support the resolution.

Dr. Campbell wished to return his thanks for this unexpected kindness. He said he had endeavoured to work harmoniously with every gentleman of the Council. He was foremost in trying to put down any feeling of an evil spirit, but the action he had taken had not the effect on his friends he expected. But he was about to sever every connection with the Council. This was the last time that Homœopathists would ever sit within these walls, for it was intended to send in the resignation of all the Homœopathists in this Council to the Registrar ; they had done for ever with the Council. The reasons were, that after exerting himself as hard as he could, and filling the office of Vice President energetically, he had not succeeded to the office of President, which he looked for as a matter of course. He was told indirectly that the reason of this was that it would be a monstrous thing to be said in the country that a homœopathist was at the head of the medical profession. He was also told by his friends outside that he would never get the other members of the

Council to look on him with cordiality. He told them he was always met with courtesy and kindly feelings, and that any prejudice would soon wear off. But when he was told that in four years there had not been one homœopathist who presented himself for examination he thought this was sufficient argument to go to the country and put an end to the Council, so far as the homœopathists were concerned. And they would establish an Homœopathic Board. In conclusion, Dr. Campbell wished the Council good evening, as his connection with the Council had ceased, and his official resignation would be sent in with that of the other homœopathists.

Dr. Berryman remarked that he wished to add "Adieu!" at the end of the resolution. (Laughter).

The President said he could not allow it for a moment to go to the country that it was because he (Dr. Campbell) was a homœopathist he was refused the chair. (Members —No, nothing of the kind). He told Dr. Campbell that the reason why he was not chosen President was a personal consideration alone. It was not right it should go to the country that it was because he was a homœopathist he was refused the chair. It was not the fact—it was from a personal consideration alone.

Dr. Adams asked if there was one gentleman present who would have voted for Dr. Campbell?

The President said he was prepared to vote for him, but he could not get any one else to vote for him, from a personal consideration, and he told him he could be voted vice-president.

Dr. Campbell.—And you thought that was good enough for me?

The President.—Yes, I thought that was good enough for you.

Dr. Dewar considered that he had as much if not more reason to complain in not being elected President as Dr. Campbell had. He was an older member than Dr. Campbell.

Dr. Campbell.—I am the oldest member of the Council. I was here and was turned out once.

Dr. Dewar.—Yes, and by me.

Dr. Campbell.—Yes.

Dr. Campbell here left the Council with his leather bag.

VOTE OF THANKS TO WARDEN THORNE.

Moved by Dr. Berryman, seconded by Dr. Bethune, that the thanks of this Council be tendered to W. H.

Thorne, Esq., Warden of the County of York, for his courtesy in granting the use of the County Council Chamber for the purpose of this its session.—Carried.

DR. CAMPBELL'S CONDUCT.

Dr. Aikins asked leave to read certain letters written to the Registrar by Dr. Campbell on the subject of the Committee of Examiners appointed by the Examining Board at the last session, when about to adjourn.

The Council resolved to allow the letters to be read.

The letters from Dr. Campbell to Dr. Pine, the Registrar, were to the effect that all papers and documents should not be allowed the examiners to peruse, and that they were not to be allowed to hold a meeting, and an order was sent from Dr. Campbell that the key of the room should be handed over to Dr. Campbell's son.

Dr. Aikins also stated that the key of the room was obtained by Dr. Campbell, and the Registrar was shut out from the room for weeks, and once Dr. Campbell threatened to send for a policeman to turn one of the examiners out of the room.

Some discussion ensued on the conduct of Dr. Campbell towards the Board of Examiners, and which the members present condemned in very severe terms.

The President considered that Dr. Campbell was deserving of the strongest censure that could be passed on him. To say he would send for a policeman to a respectable man! Any one daring to say he would send for a policeman to one of the most respectable men in the city of Toronto, a man appointed as an examiner, was most disreputable, and he could not find language strong enough to speak of such conduct.

THE ACT TO AMEND THE ONTARIO MEDICAL ACT.

The Council went into Committee of the whole on the Bill of "The proposed Act to amend the Ontario Medical Act," Dr. Hillary in the Chair.

The several clauses were adopted.

The Committee rose and reported the Bill as amended.

Dr. Lawrence proposed, seconded by Dr. Hyde, that the Bill as amended be referred to the Executive Committee.—Carried.

REGISTRATION OF DEATHS.

The President drew the attention of the members of the Council to the matter of medical men being required

to furnish particulars respecting the deaths of persons without any remuneration. He considered the Council should consider the matter.

DR. CAMPBELL'S RESIGNATION.

Dr. Grant remarked on the sudden resignation of Dr. Campbell. He considered no person should withdraw from the Medical Council on personal grounds, and because he was not elevated to any important position. If any member had the good of the Council at heart, he should still work as one of the body endeavoring to elevate the medical profession in the Province of Ontario. (Hear.) The Legislature, when their Bill was presented should be made aware of the important fact that Dr. Campbell withdrew from the Council on purely personal grounds, and such withdrawal should receive the consideration of the Legislature. (Hear.)

ERRATUM.

The name of Dr. E. G. Edwards, as Examiner for Physiology, was omitted in our report of yesterday.

VOTES OF THANKS.

Votes of thanks were passed to the President and to the members of the press, Dr. Berryman remarking that the proceedings of the Council had not been so faithfully reported for the past eight years as they had been this time.

The Council then adjourned *sine die.*

LEGAL INTELLIGENCE.—SUPERIOR COURT, MONTREAL.

We publish the judgment given in this case not that it has any special interest to the medical profession generally, but because the controversy was first started in the columns of the *Canada Medical Journal.*—(Ed.)

Before Judge JOHNSON.

BOWKER *vs.* BEERS.—The parties are both dentists residing here; and the Plaintiff brings his action against the Defendant for having, with intent to injure the Plaintiff in his character personally and professionally, written and published in the March number of *Canada Journal of Dental Science* certain commentaries on another article that had appeared in the January number of the *Canada Medical Journal*, signed by the Plaintiff. The *Canada*

Journal of Dental Science is printed at Hamilton in Ontario, but the publication by Defendant in Montreal is what is complained of in the present case, and it is proved that the *C. J. of Dental Science* was circulated here, and received by five witnesses, and also that the Defendant is one of the editors and publishers of it. This is all there is as to the fact of publication here. What is in issue under the 2nd plea, and under the circumstances, I hold it to be enough.

1st. The Defendant, by his plea, admits that he wrote the article complained of, and said that it was partly provoked and called for by the previous production of Dr. Bowker, to which it was an answer. The subject of this controversy was the use of amalgam by dentists for filling cavities in the teeth, and the Plaintiff commenced the discussion in the *Canada Medical Journal*. It cannot be said that it was not a fit subject for discussion in the interest of dentists and of their customers. The only ground of complaint could be that the discussion was not conducted in a fit and proper manner, that the dispute ceased to be scientific and became personal.

The Plaintiff in the article that called forth the one complained of in his action had a perfect right to condemn the use of amalgam.

He used that right, but unfortunately he did not stop there. After exposing its noxious properties and effects, he says : "The question is often and naturally asked why this amalgam is so generally used by a certain class of dentists." The answer can be found in one or all of the following explanations ;

1st. The cheapness of the material.

2nd. The ease and facility with which it is used, for it can be put into the most difficult cavities with as much ease as so much putty or wax.

3rd. It makes up for the want of skill and ability to use something better.

4th. From ignorance or the want of honesty.

The Defendant replied to this article in the *Canada Journal of Dental Science* in the same temper. Not content with refuting that part about the amalgam in point of fact, he says : " Dr. Bowker, you are an impostor : " you yourself use this very article which you condemn " in others." Now this is a libel like the first ; but the first was a libel on the profession, while the second is one on Dr. Bowker. If he had considered himself libel-

led as a member of the profession, Beers might have sued the author, but he did not do so, but he libels again. It is to be observed that he is charged with a *wanton* and *malicious* libel. Now it cannot be considered such, but was written under provocation, and not wantonly or maliciously. This will go in mitigation of damages, which I have placed very low. Judgment for 50 shillings damages and costs of an action of the lowest class in the Superior Court. *A. & W. Robertson* for Plaintiff; *Carter & Keller* for Defendant.—Montreal *Herald.*

GEORGE WOOD, M.D., C.M., LATE OF COATICOOK.

We regret to learn that Dr. George Wood, who had practised most successfully in Coaticook for some years past, has removed to the Western States. In expressing a sentiment of regret, we do so merely as indicating what we look upon as a serious loss to the community, by whom Dr. Wood had been regarded with feelings of affectionate esteem, and thorough confidence, as a surgeon of ability and apt resources. As an evidence of the general good feeling which prevailed we give below a report of the addresses presented to Dr. Wood on the occasion of his departure, taken from the Sherbrooke papers. We fully endorse the sentiments expressed in the addresses subjoined, and wish Dr. Wood every prosperity and happiness in his new sphere of action :

PERSONAL.—Dr. Wood and family started on Tuesday last for their Western home, in Fairbault, Minnesota. On the Monday previous to his departure, he received an intimation that his friends would be pleased to meet him at Shurtleff's Hall at eight o'clock that evening. At the appointed time the hall was filled with the Dr's friends. Lewis Sleeper, Esq., was elected chairman, and on behalf of Dr. Wood's friends presented him with an address and a valuable gold watch and chain. An address was then presented by Dr. Damon, on behalf of the medical profession of the District ; after which, Dr. Paradis, on behalf of the medical profession of Coaticook, in a neat and appropriate speech, presented him with Aitkens' Practice of Medicine, in two elegantly bound volumes. Dr. Wood responded in brief but fitting terms to the addresses.

which we give below. C. C. Colby, Esq., M. P., then addressed the assembly at considerable length. He said when he heard that their highly respected and mutual friend was about leaving Coaticook, to take up his residence in a foreign country, he felt that he could not permit him to depart without coming personally to say goodbye, and wish him God speed. Mr. Colby expressed his pleasure in being able to attend the demonstration which was then being made, and by which the people of Coaticook desired to show their appreciation of the many admirable qualities of head and heart which it was admitted by all that Dr. Wood possessed. He said that Dr. Wood, during the ten years that he had been a resident of Coaticook, had won a position of which any man might be proud ; as a physician, he was acknowledged to rank among the first in his profession ; as a citizen he had been alive to the interests of the place, frank and outspoken in expressing his opinions, and fearless in acting in accordance with what he believed was right and just. All would feel that they had lost a warm friend, an able and skillful physician, and an active, energetic, and law-abiding citizen. The chairman then called upon E. D. Worthington, Esq., A.M.M.D., of Sherbrooke. Dr. Worthington spoke highly of the abilities of Dr. Wood as a medical man, and also of the uniform gentlemanly bearing which had always characterized his intercourse with the other members of the profession. He said that in a profession where each member was so jealous of his professional reputation that it had nearly passed into a proverb that "Doctors never agree," George Wood might well feel proud of the position which he occupied among his professional brethren, when they came forward, nearly to a man, to express their high appreciation of his ability, and to testify to the uniform courtesy and friendliness of manner which had always marked his intercourse with them. After music by the Coaticook Cornet Band, which had been in attendance during the evening, the assembly dispersed.

To George Wood, Esq., M.D., C.M.

Dear Sir :—The undersigned on behalf of themselves and your large circle of friends, beg leave to present you this address on the eve of your departure to a new home in the west, after so many years residence among them, in

which they have never ceased to esteem you for your excellent qualities of both head and heart; they regret more than can be expressed, your decision to remove from this place to a permanent residence elsewhere. All classes of society regret it, the rich and the poor alike have felt the benefit of your professional services, of your great kindness, your warm friendship.—They beg you to accept from them this watch and chain that you may carry with you a small token of their sincere regard. And now in taking leave of you with so much regret, they trust that in arriving at your new home you and Mrs. Wood will meet that kind, heartfelt—welcome, which your merits so richly deserve.

LEWIS SLEEPER; A. A. ADAMS; JOHN THORNTON; HORACE CUTTING, with 95 others.

TO GEORGE WOOD, Esq., M.D., C.M.

Dear Sir:—We beg to assure you that it is with very sincere regret, we have heard of your intention to leave Coaticook. Entertaining, as we do, a high opinion of your professional abilities, and remembering the uniform courtesy and friendliness which has characterized your intercourse with your professional brethren, we cannot allow you to leave without assuring you of our best wishes for the happiness and prosperity of yourself and family. Believe us to be,

Faithfully yours,

BENJAMINE DAMON, M. D.; E. D. WORTHINGTON, A. M., M. D.; F. AUSTIN, M. D., C. M.; D. F. ROBERTSON, A. M., M. D.; A. W. HAMILTON, B. A., M. D.; A. HOPKINS, A. B., M. D.; G. W. POWERS, M. D., C. M.; JAMES MCNEECE, M. D., C. M.; GEO. G. SOMERS, M. D.; J. B. HALL, M. D., C. M.; FREDERICK PARE, M. D.; R. A. D. KING, B. A., M. D., C. M.; E. IVES, M. D., C. M.; L. T. MARCEAU, M. D., C. M.; P. E, PARADIS, M. D., C. M.; W. RUSH CLEVELAND, M. D.

CANADA

MEDICAL AND SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Report of Cases of Lead Poisoning by which eight persons were the victims of Colica Pictonum. By THOMAS J. O. EARLE, M.D., St. John, N. B.

About eleven in the evening of June the ninth, I was called to see a family who were said to be suffering from cholera or some dangerous poison, I went to the scene as soon as possible, and found six men stretched on the floor of a large room vomiting and suffering excruciating pain which they located in the gastric region. Their pulses were feeble, slow and irregular, pupils of eyes normal, skin clammy, some tympanites, bowels constipated. They were so extremely weak, I at once administered alcoholic stimulants. It was evident some irritant poison was at work, so I gave oil, whites of eggs and milk *ad libitum*. In about half an hour the vomiting ceased and they had rallied considerably, though still suffering intense pain. Hot flannels and turpentine were applied to abdomen and "Liquor-Opii Sedativus" (Battley) was given to each, which relieved them considerably. I now searched the house thoroughly for poison, examining the edibles and also the spring from which they obtained their water, but could find no clue to the mystery. No rooms had been newly painted and no new pails had been in use. I had given up the search as fruitless when one of the women asked me if lead in the "Tea kettle" would do it. Here was the key of the secret. On examining the kettle, the bottom and sides were coated with lead.

She then gave the following history.

About ten days before the men had used the kettle to melt lead to pour into the journals of some mill machinery, and without washing it had continued to use it for culinary purposes right along. The lead taken up by the boiling water accumulated in their systems causing the poisoning symptoms. Next morning the two women who resided in the house were seized with the same symptoms, thus including the whole family. The treatment continued was: Sulphate of Magnesia and dilute Sulphuric Acid in water with sufficient opium to relieve pain. They are all recovering and no doubt will appreciate the aphorism Cleanliness is next to Godliness."

72, Main Street, St. John, N. B.

The Physiology and Psychology of the Brain. By HORATIO R. BIGELOW, ESQ., Boston, Mass.

The province of physiology in all ages, has been the localization of the functions of life, circulation being ascribed to the heart, respiration to the lungs, and digestion to the stomach, but it was not until after the days of Buffon, who described the brain as a mucous substance unworthy of notice, that the intimate causative relation between the cerebral hemispheres and thought received an enlightened investigation, and here tradition hypothecated an intangible entity, which presided over the intellectual outcome; the intellect and moral power were not the effect of cerebral re-action, but the manifestation of a misty, spiritual vagary governing the physico-chemical changes. But a later period, and a more unbiassed habit of thought, has taught us to seek the solution of the mysteries of vital phenomena, in the general laws of physics and mechanics.

As in the fourth century, he who cherished a belief in antipodes was shunned as a blasphemer, so until very recently, he who would defend his belief in evolution

and the correlation of forces, was railed at by that school of theologians who transcending their legitimate limits of thought, tortured their brains with the *order* of Nature, as well as its cause, and was hesitatingly patronized by society. But now that science is exerting its supreme control, the old chains of tradition are rapidly unloosening: religious toleration is supervening upon the exaltation of God, which arises from a study of geology, and from a severance of the unalterable belief in the accuracy of the Mosaic Law. The heresies of yesterday are the creed of to-day, and while we see the human institutions of religious sects, change with every century and every variation of latitude and longitude, Science keeps on its way, unswervingly, pointing upward, higher and higher, to a final perfection. So that, now, among men whose opinion is valuable, there is no appeal from the theory of evolution among men, among animals and in the vegetable kingdom, just as we also rest assured in the verity of the "Nebular Hypothesis." As then we study matter in all its relations, as we approximate to just theories of force, which is simply matter in motion, by comparisons with similar phenomena, so, too, we must correlate these attested facts, with the hypothetical theories of brain force, and from the relation deduce new theories. Descartes, recognizing this truism, and adopting the views of Galen, locates in the brain the function of the distribution of "animal spirits," the distribution to those parts in need of certain stimuli being effected through the nerves. But over and above this power, was an all governing essence, which had its seat in the pineal gland and which he called *soul*. This great Philosopher, and I may add physiologist as well, recognized a physiological mechanism, and over that the thinking power of a *soul*. This view prevailed among those of like persuasion for many years; the brain was merely the substratum of thought; while the physiological order of the correlation of forces, was plainly visible, even by the

greatest skeptic, in all the other viscera of the body, it was held that thought and will, must be referred to other methods of analysis. This was the great mistake arising from a just apprehension of chemical mechanism and metaphysical phenomena.* De Blainville fell into a similar error, and held that in certain cases of insanity the reason might be affected essentially, while the brain remained absolutely normal, and that conversely, there might be unimpaired intellectual vigor in persons with indurated or softened brains.

Modern science has destroyed such illusive doctrines; and while there is much material hypothesis, in the theories of those eminent investigators in this particular field, yet by a judicious combination with objective metaphysical study, and by an educated observation of the various forms of the "mind diseased," a great preponderance of probability will result.† As the Bacteria and Torula, are spontaneously generated, as we have reason to believe that the amœba can boast no longer of an ancestral race, antedating primeval man, so, the human mind, evolved by purified generalizations of heredity, is progressively upward, and we are justified in the belief, that these speculations of to-day, relative to the functions of the brain, will in after-generations, receive the testimony of direct proof. There are certain facts, which have already been established by experiment. We know that consciousness resides in the cerebral lobes, while the lower portions of the brain, contain nervous centres destined for organic functions of a lower kind. In the lower and higher orders of the animal kingdom, removal of the cerebrum does not impair motion, though certain stimuli are required to develop it, and the motion, once originated, continues until forcibly arrested.‡ If the movement of one limb

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* De Blainville: Lecture on Zoology.

† Bastian: Beginnings of life.

‡ M. Onimus: Physiology of nervous system.

be stopped, the other limb will cease moving also. Pigeons when deprived of the cerebrum, will perform vital functions, though they require to be fed, and the instinct returns with the regrowth of the cerebrum. Animals deprived of the cerebral lobes also exhibit a forced tendency to maintain their equilibrium, showing that the cerebellum alone originates this power. There are, among the encephalic centres at the base of the brain, centres of co-ordination and direction of movement, which preside over the details of external life (walking, flying, &c.) Now the motions of the body originated by these centres, under the influence of the brain are of two orders: those of instinct or hereditary acquisition (Herbert Spencer) and those of habit. If you remove the cerebral lobes of a duck that has never been in the water, and then place it in water, it will swim regularly, but it will not, like an old duck deprived of its cerebrum, make certain habitual movements of the neck. The eye is merely the medium, through which a sensation is conveyed to the brain, or sensory tract, and converted into an impression, and this is so intricately interwoven with tactile sensibility, that the one exists but imperfectly without the other. Color, is the abstraction formed by one mind, out of the number of millions of undulations of light per second, impinging upon the retina. Sound is the transmitted impression of the auditory nerve. A large tree falling in a forest would occasion no noise, unless there were some one by to hear it. Lesions of certain kinds, within the brain, produce certain well authenticated results; softening of the peduncles brings about a peculiar gait, extravasation into the corpus striatum, hemiplegia, multilocular cerebral sclerosis, a species of paralysis agitans. These are all incontrovertible facts revealed by recent intellectual experiments. When we stretch out farther into the hidden land, and strive to locate the various phases of thought, the will, the intellect, we must deal in individual hypothesis, which will differ in the direction of each investigator's bias.

The absolute connection between mind and matter, is as yet beyond the pale of human inquiry, and hence however erudite and extended our studies, we must all be arrested at that final change in molecular disposition which "immediately and causatively precedes inchoate consciousness." Yet, at a very early stage of physiological inquiry the Seat of the Soul or Conscious Principle,* was a theme of elaborate and ingenious hypothesis. Hippocrates and Hierophilus placed it in the fibres of the brain; Democritus in the region of the temples; Strabo in the space between the eyebrows; Epicurus allocated it in the breast; Diogenes in the left ventricle of the heart; the Stoics, with Chrysippus, in the whole heart; Empedocles placed it in the blood; Plato and Aristotle connected the soul with the whole body; and Galen suggested that each part had its separate soul. Dr. Gall towards the close of the last century, was the first to enunciate clearly the doctrine, that different parts of the encephalic mass fulfil different functions. Just prior to the publications of Gall's doctrine, Prochaska had written "Since the brain, as well as the cerebellum, is composed of many parts, variously figured, it is probable that nature, which never works in vain, has destined those parts to various uses; so that the various faculties of the mind seem to require different portions of the cerebrum and cerebellum for their production."

It would consume too much time, to enter into a detail of this system of *Phrenology*, it is sufficient to know, that it has not received from investigation that confirmation which was anticipated for it—some of its great underlying principles are doubtless correct, and outward arrangements claim attention—we know that a high broad forehead, with prominent frontal eminences, is indicative of intellectual ability; a retreating forehead, low, and running to a point at the cranial vertex, implies a low

* Noble: Human Mind.

grade of humanity; and if a link were needed to substantiate the theory of evolution between men and animals, we could not be far wrong in suggesting the Theroid Idiot. Then followed the cranioscopy of Dr. Carus*—consisting of a three fold division of the encephalon, each corresponding to certain psychical qualities. But the defects of this system, were so numerous and obvious, that it has never received great attention, although it seems to have furnished the germs of the existing teachings. The present tendency is to look upon mind as the force generated by the chemical re-actions in the vesicular neurine of the cortical and hemispherical cells of the brain. This is a very probable and scientific theory, and it is by adopting some such concession only, that we can hope to treat effectually mental diseases; for as in every other other disease in the body, the remedies are applied to the suffering viscera, so too, in this, the highest of all, we must address ourselves to the brain. If this be materialism, then it is the essence of human charity. If mind be a spiritual gift, beyond the ken of investigation, then every case of mental alienation must be treated as such, and left to perish in its wretchedness! all brain lesion passed by unnoticed, and herein Theology by going beyond the pale of its legitimate offices, may tend to cause great evil, and seduce the ignorant from Christian duties. Starting out then, with this theory of mind, we at once ignore the reception of any such teachings, as those of *intuitive ideas*. The new born babe, possesses not these. It suckles by the reflex operation of the nervous action of the spinal cord. It *learns* to walk, the reflex impression, occasioned by the pressure of the foot upon the floor, excites coordinated movement, and through a better experience, the automatic habit is acquired. The moral test of Right and Wrong, is the generalized expe-

* Grundzüge einer neuen und wissenschaftlich-begründeten cranioscopie. Stuttgart, 1841.

rience of previous generations, indeed we might almost say that the mind itself was an ancestral product. The child is taught to recognize, that certain actions will call forth reproach or punishment, and hence avoids them. The abstract idea of virtue, which Socrates called "The harmony of a man's powers"; Kant, "a will in harmony with the universal moral sentiment"; and which utilitarianism refers to a species of self-interest within a man, is acquired. The *Will*, is a product of mind, and hence as a dependent force, the paradox of Free Will becomes apparent. In certain cases of insanity, a person may have a thorough appreciation of Right and Wrong, yet, by uncontrollable force of Will, be urged into crime, despite himself. Herein lies the great injustice of this olden, judicial test. Maudsley defines the Will to be "the desire or aversion, sufficiently strong to occasion action, upon reflection." In nature, certain stimuli, call forth a resultant force. In the brain, the necessary stimulus, brings about a like result. In certain cases of melancholia, the patient however great his riches, may imagine himself a pauper. The one aim of his life has been the acquisition of wealth—for this end all his mental power has been put into action, the fluctuations of the money market have depressed his spirits, while an influx of wealth has unduly exalted him, and just as the hand, by constant use, may become palsied, so the mind by the constant inspection of this one idea, breeds unhealthy chemical action in the cells of the brain and originates as delusion that which the patient has so feared and warred against.* As I have shown elsewhere the integrity with which a person's ideas re-act outwardly towards nature, and the measure of his proto-typical cerebral arrangement will be the standard of his mental trustworthiness. As in nature, there is a conservation of force, so too, in nature's work, the brain, an idea which re-acts but par-

* The insanity of Hamlet, a psychological study.

tially externally prolongs its tension in a nerve cell and becomes consciousness, or it may impress itself, to react at some future time as memory, or by its association with a particular physical condition, may for ever call forth pain or laughter, when a similar condition obtains.

In cases of melancholia, where there is morbid self-introspection and religious depression; the first aim in the treatment, is to withdraw the mind from this concentration upon itself, to interest it and to bring it into harmonious relationship with nature, and to excite its normal tone, by association with healthy minds.

OXIDE OF ZINC IN INFANTILE DIARRHŒA.—In the *British Medical Journal* of July 12th, Mr. Edward Mackey, M.B., recommends oxide of zinc in infantile diarrhœa, especially in those forms complicating nerve troubles or whooping cough. He points out that it has "tonic and anti-spasmodic, as well as astringent qualities, a combination in a non-irritant substance, exactly suited to many cases of the malady." It does not irritate, as chalk sometimes, does, or gripe as acids do occasionally, and is a better nerve tonic than Bismuth. Mr. Mackey says that it has given him excellent results in all varieties of infantile diarrhœa, in conjunction with suitable diet. Dose, one grain for any age under two years, with a little syrup, mucilage and dill-water three or four times daily, not on an empty stomach. A larger dose may nauseate. He says that oxide of zinc will give us in many cases the maximum of good with least liability to harm, an advantage to be desired, especially in out-patient and distant cases. Dr. Waring-Curran has referred to this use of oxide of zinc, in the *Lancet*, October, 1868, and Dr. Brakenridge in the *Medical Times and Gazette*, Feb., 1873, points out its tonic and antispasmodic, as well as astringent properties.

Hospital Reports.

Medical and surgical Cases Occurring in the Practice of the Montreal General Hospital.

Case of Compound Fracture of the leg from a Railway accident, treated with Carbolic Acid injections; recovery without amputation. Under the care of Dr. G. E. Fenwick. Reported by Mr. J. C. Cameron.

R. C. æt. 30, admitted to the Montreal General Hospital, April 18, 1873. Is a strong, healthy, vigorous man, remarkably cool and self-possessed, temperate in his habits, married and the father of several children. Has been in the employ of the G. T. R. for some time in various capacities; has been brakesman for more than a year. The accident happened somewhat as follows:— His train had stopped for wood at Acton, a small place some 54 miles from Montreal; a large framework used for measuring wood was left standing, through the carelessness of the wood-man, too close to the track. C. was standing near this cord measure on the side furthest from the engine, a few yards ahead of the hind-car. As the train began to move, he saw the conductor jumping on at the rear of the hind-car, and, as two persons could not get on there at the same time, he had the alternative either of jumping on in front of the hind-car or being left behind altogether. He, of course, chose the former and sprang on in front; but before he could scramble up to a position of safety, he was carried against the projecting frame-work, knocked off, jerked round and thrown on his back across the rail between the front

and rear trucks of the hind-car. Realizing his danger, he at once with great presence of mind, attempted to drag himself out; but the place was so icy that he succeeded in drawing out his body and left leg only when the hind-truck caught the right one and ran over it just above the ankle. The accident happened about 7 a. m., and he arrived at the Hospital about 1 p. m., accompanied by a resident doctor of the place.

Condition.—Had lost but little blood, seemed in excellent spirits, suffering but slightly from shock. Upon examination, compound fracture of both bones was discovered, of the *Tibia*, about the junction of middle and lower thirds, of the *Fibula*, somewhat higher up. The wound was very small, scarcely admitting the point of the little finger. Very little extravasation in the leg, no crushing or injuring of surrounding parts. The case was so recent, the man so vigorous and self-possessed, the shock so little, the extravasation so trifling, and the wound so small that Dr. Fenwick determined, if possible, to save the leg. He accordingly injected the wound thoroughly with a solution of carbolic acid in water 1 x 10; and the leg was put up in a box splint, comfortably packed in bran and supported on a pillow. Pulse good, temperature normal, spirits excellent.

Diet, milk and beef tea in abundance.

April 13th.—Has been doing nicely, sleeps well. Has taken a draught of Sol. Morph. Mur. 3i for several nights, spirits excellent. Leg was taken down, a small slough separated leaving a second opening on the other side of the leg. The wound was syringed out thoroughly with carbolic acid lotion 1 x 40, in through one opening and out through the other. The temperature of the leg was good, circulation in the foot excellent, inflammatory action quite localized. Swelling in the upper part of the leg very slight. Was put up again in the box splint with bran. Was ordered beefsteak, 1 pt. ale., 1 pt. porter.

April 20th.—Leg taken down again, a small fragment of bone was removed. Parts nice and healthy. Put up in a gutter splint and the wound dressed with carbolic acid lotion 1 x 40, three times a day. Draughts discontinued. Urine voided freely. Bowels open about every second day.

May 1st.—Sore granulating nicely. Dressing changed to equal parts of red wash and carbolic acid, lotion 1 x 40.

May 4th.—Pus burrowing about the leg, drainage tubes introduced in three places. Everything looking well.

May 18th.—Two drainage tubes removed and a fresh one introduced to prevent burrowing up in the thigh.

From this time, the sore improved rapidly, bony union was formed, and the general health became much better. Fragments of bone came away at various times, the last and largest was removed on the 6th of July, since which date recovery has been very rapid. Drainage tube were all taken out, the sores dressed with red wash, and on the 31st of July the gutter splint was removed altogether, and a side splint substituted to give support to the limb and to allow suitable dressings to be applied. The sores are now granulating nicely, the bones are well united and will soon be quite strong. Patient is in excellent condition and will probably leave the Hospital very shortly, quite cured.

Case of Acute Urethritis, Extravasation of Urine, Sloughing of the Scrotum Recovery. Under the care of Dr. Fenwick. Reported by Mr. G. NELSON JONES.

J. S., aged 23. Entered Hospital 12th April, 1873.

History.—Had gonorrhœa about three months before admission, which was never treated and never altogether disappeared. About a month after gonorrhœa first appeared, he had slight difficulty in passing water, but only

for a few days. A week before admission his penis and scrotum commenced to swell. On entering Hospital, his scrotum was about four times its natural size, and his penis also much swollen. There were several sloughs in the groin below Poupart's ligament, and one on scrotum. There was also erysipelatous swelling at lower part of abdomen.

April 13th.—A catheter was passed after much trouble and retained. Several incisions were made in scrotum and urine trickled through. A linseed poultice was applied over affected parts. Was ordered Potas. Chlor gr. V. and Quin. Sulph. grj. every four hours.

April 14th.—The catheter by some means became displaced, and after several attempts a gum elastic one was passed and tied. Sloughs are extending on scrotum, but the erysipelatous inflammation of abdomen has gone down. Feels better and has a good appetite.

April 15th.—Front of scrotum sloughing away rapidly. A very large slough on penis.

April 16th.—Sloughing continues, right testicle almost bare.

April 18th.—A large abscess had formed in left iliac region. This was opened and a large amount of pus escaped.

April 19th.—Both testicles perfectly bare. Linseed poultice changed for carbolic lotion.

April 21st. –Catheter removed — he now passes his water without difficulty.

Shortly after this date the parts commenced to cicatrize, and when he left the Hospital about the middle of June, a new skin had formed over the testicles and the man was well in every respect.

Case of stone in the bladder in a child of seven years—Lateral operation. Recovery. Under the care of G. E. FENWICK, M.D.

This spring, while on a visit to the country to see a clergyman who was ill, I was shown, by the medical man of the village, a case of a child who was suffering from the symptoms of stone in the bladder. Not having anything at hand, in the shape of a sound, I requested the parents to bring the child to Montreal. This they did on the 1st of July.

The following day, the boy was placed under the influence of chloroform, and a short-beaked sound passed into the bladder, when the presence of a small stone was readily detected. The history of the case is as follows :

H. D., aged seven years, was admitted to the Montreal General Hospital, on the 1st of July, 1873, and the following facts relating to the progress of disease, made out: When about two years of age, he had passed a small concretion, which was about the size of a small pea, circular in shape, and of a brownish colour, evidently uric acid. Nothing further was noticed in connection with the child, leading to the suspicion of the presence of stone, until about two years ago, when incontinence of urine occurred, more especially at night, and even in the day time the boy would constantly wet his clothes, and suffered considerable agony at intervals. The penis was larger than is usually seen in a child of his age, the prepuce was long, and the mother stated, that occasionally, when he could not make water, he would seize hold of the penis, drag it forward, and strain to such a degree, that the rectum became prolapsed.

Having made out the presence of a stone, I determined upon its removal by the lateral operation. The child was ordered overnight a dose of castor oil, and on the following morning, July 3rd, the rectum was well washed out with an injection of tepid water. The child was then placed under the influence of chloroform, and a grooved

staff passed into the bladder, and made to rest on the stone. The staff was held by my friend and colleague, D. C. McCallum, M. D. The operation was proceeded with and the stone removed. There was slight hemorrhage, which appeared to come from the venous Plexus round the rudimentary prostate. This, however, soon subsided, and the child was removed to bed. There was no subsequent blending, and the usual after-treatment of these cases was pursued, and on the ninth day after the operation, urine was voided in small amount through the natural passage. Micturition was painful at first, but the pain gradually subsided. The child left the Hospital on the 18th of July with the wound almost closed.

Books Received for Review.

Medical and Surgical History of the war of the Rebellion 1861 to 1865 ; prepared under the direction of Surgeon-General Joseph K. Barnes, United States Army ; Washington Government Printing Office, 1873.

The Pathology and Treatment of Skin diseases, by J. L. Milton, Senior Surgeon, St. John's Hospital, &c., pp. 358, 8vo : London, Robert Hardwicke, 192 Piccadilly, 1872.

Experimental Researches on the causes and nature of Catarrhus Æstivus, Hay Fever or Hay Asthma, by Chs. H. Blackley, M. R. C. S, Eng., 8vo., pp. 202, London, Baillière, Tindall and Cox, King William Street, Strand 1853.

Report of Columbia Hospital for Women and Lying-in Asylum, Washington, D.C., by J. Harry Thompson, A.M., M.D., Surgeon in chief, with an appendix, 4 to pp. 430, Washington Government Printing Office, 1873.

Correspondence.

LONDON CORRESPONDENCE.

JULY 10, 1873.

Nothing has been talked about here, lately, but the Shah of Persia and his visit. He seems highly delighted with his reception, which has been of a somewhat different description from that with which our Eastern allies have usually been favoured, and he leaves our shores with a very high opinion of the power and wealth of England. He has not seen many signs of the much-talked of degeneracy of the country, and the political results of his visit will probably be most important. We have had uncommonly hot weather here lately, and the thermometer has frequently stood at 85°.

The recent election for members of the Council of the Royal College of Surgeons, took place on July 3rd, and Sir James Paget, Mr. Haynes Walton, Mr. George Southam and Mr. John Marshall, were elected. The other candidates were Mr. Savory, Mr. Hussey, Mr. Hird and Mr. Cooper Forster.

On Monday, June 23rd, the United Hospitals Athletic Sports came off at Lillie Bridge Grounds, where the Oxford and Cambridge Sports and various other athletics come off. In spite of the counter-attractions of the Shah at Spithead, and the Oxford and Cambridge cricket match at Lord's, there was a very large attendance. A portion of the band of the Royal Artillery, was on the ground, and everything passed off very well, the weather being beautiful. This year, St. Bartholomew's Hospital holds the champion shield, for the first time. Guy's has taken the shield three times, King's twice, and St. George's once.

The other day at St. Bartholomew's, Mr. Callender performed Litho-nephrotomy, for the first time in this country, upon a woman, aged 44. An incision 4 or 5 inches long being made in a line corresponding to the outer border of the right quadratus lumborum, he divided each layer of tissue on a director until he reached the border of the quadratus and displayed the kidney. He then introduced a fine trochar and canula, and some thick pus escaped, after which he enlarged the opening and a large quantity of very fetid pus was evacuated, and he was able to feel the stone. The calculus was divided with the bone forceps, as it could not be taken out whole on account of its irregular shape, and two large pieces and a large number of small ones were removed. The wound was well washed out with Condy's fluid, and dressed with carbolic-oil. The woman was much relieved by the operation, but sank from exhaustion 71 hours after the operation. Her state before the operation was extremely low.

Mr. Callender also resected the elbow-joint in an old case of strumous disease. The patient, a boy aged 14, had been previously treated by Mr. De Morgan's plan, namely, free incision into the joint, and injection with chloride of zinc solution. Since the operation the boy has done well.

Mr. Smith at St. Bartholomew's, on June 26th, removed almost the whole uterus from a woman, aged 29 years, by means of the écraseur. Scarcely a drop of blood flowed during the operation, and since then the patient has done well. Mr. Savory performed colotomy, on a woman aged 54 years. The peritoneal sac was opened in the operation as the colon was attached to a fold of it. The operation was performed on the descending colon, and owing to the emaciated condition of the patient, and the distended state of the bowel, it was easily done. This week at Guy's, Mr. Birkett performed several operations, among which were excision of a cystic tumour from

the back of a woman, and amputation through the tibia for disease of the bone and ankle joint. For a case of disease in the elbow-joint, Mr. Durham removed as much dead bone as he could, but left the cartilage, perichondrium and periosteum.

In the *British Medical Journal* of June 4th, is a very interesting account, which I transcribe, of excision of the superior maxilla, at the Middlesex Hospital, by Mr. Hulke, and of Amussat's operation at University College Hospital, by Mr. Heath : "*Excision of Superior Maxilla.*" —Mr. Hulke operated on a country lad, aged 18, for a large tumour, growing, apparently, from the orbital part of the left superior maxilla. Instead of the hollow between the eye and the nose, there was a prominent rounded swelling; the left nostril was obstructed, and the eyeball pushed forwards and upwards, though the sight was not affected; there was but little fulness of the lower part of the cheek, indeed, the antrum had been explored, and found to be empty. The tumour had been fifteen months growing, though it had increased more rapidly during the last three months. Mr. Hulke made an incision over the tumour, along the lower margin of the orbit from without, inwards, and then cut downwards, along the side of the nose, into the mouth. The flap thus formed, was dissected off, and turned outwards; the malar bone was then divided with strong bone-forceps, the nasal process of the maxilla divided in the same way, and the anterior wall of the antrum cut through horizontally, above the roots of the teeth. The malar, and upper part of the superior maxillary bone was then removed. The large exostosis was thus exposed, and found to be deeply and firmly attached to the lower and back part of the orbit. It was seized with the lion forceps, and removed partly with a narrow-bladed saw, and the rest with the bone forceps. There was free oozing of blood; this was soon stopped by plugging the wound with lint, soaked in solution of Perchloride of Iron. The opera-

tion would have been performed a fortnight before; the patient was placed on the table, and was scarcely under the influence of chloroform, when he had a slight, but distinct, epileptiform attack, attended with arrest of respiration, muscular spasm, etc., the operation was therefore postponed. Both the patient and his parents declared that he had never had any fit previously. The boy did not take the chloroform very well on the second occasion, but there were no convulsions.

"*Amussat's Operation.*" Mr. Heath performed Colotomy on a woman who had been for many months under treatment for a chronic syphilitic stricture of the rectum, rather high up, and attended with extensive ulceration. An O'Beirne's tube was first passed through the stricture, and an enema injected, to assist in distending the gut. Mr. Heath then made the usual incision, about four inches long, parallel to, and a little above, the crest of the ilium. The transversalis fascia, when reached, was divided on a director, and the fold of peritoneum, behind the colon, separated with the handle of the scalpel. A knuckle of gut was then pulled forward, and a couple of threads passed through it, and through the lips of the wound. The bowel was then opened, the thread inside it, cut, and the cut edges of the colon securely attached to the skin by the four sutures thus formed. The rest of the incision was then closed, and the whole covered with a thick layer of picked oakum. Mr. Heath observed, before the operation, that as the obstruction was not complete, he did not expect to find the bowel much distended. There was considerable narrowing of the rectum, and prolonged treatment, with bougies, etc., had not effected any lasting benefit. The chief trouble of the patient, was, however, due to the great pain, and the large amount of discharge caused by the constant irritation of the ulcerated surface by the passage of the fæces over it. After the operation, he called attention to a point which is mentioned in Mr. Bryant's *Surgery*. After dividing the transversalis fascia,

a yellowish band is seen through the peritoneum; this is the fat on the colon; if one cut down upon this, the peritoneum is opened, and the front of the gut is reached; it is necessary to seek behind it for the fold of the peritoneum, and, this having been separated further, if necessary, the bowel can at once be opened. The arteries were closed by torsion. The picked oakum is largely used at this Hospital (University College) as a dressing for suppurating wounds, it is very warm and comfortable, and effectually conceals the purulent odour.—*British Medical Journal*, June 14th, 1873.

USE OF GELATIN SUPPOSITORIES IN OBSTINATE CONSTIPATION DUE TO ACCUMULATION OF FÆCES IN THE RECTUM.—In the above cases, and when there exists an accumulation of hardened fæcal matter in the rectum or colon, Dr. Nagel (*Allgemeine Wiener Med. Zeitung* April, 1, 1873) finds that when purgatives and enemata have failed, and in order to dispense with the use of the anal *curette*, suppositories of gelatin constitute an easy, harmless, and effective means of removing the evil. The suppositories are made of brown gelatin. They are steeped in water for twelve hours, and being thus softened and enlarged are introduced into the rectum. By subjecting the patient to a suitable regimen, an evacuation of pultaceous matter is obtained in twenty-four hours. The author attributes these effects to the hygrometric properties of the suppositories.—*Lancet.*

Medicine.

CHOLERA STAMPED OUT.

SUMMARY DEALING WITH CHOLERA AT THE WORKHOUSE, BLACKWELL'S ISLAND, 1866.

To Professor Frank H. Hamilton, New York, we are indebted for official and other papers, of which the following is an abstract, of his success in stamping out cholera:

July 26th, 1866, at midnight, the Asiatic cholera broke out with great violence at the Workhouse on Blackwell's Island; sixteen cases occurring within the next twenty-four hours. One case had been recognized on the 22nd of July, but no more occurred until the night of the 26th. The number of new cases rose and fell from this date until the 2nd of August, on which day there were reported 33 new cases, making in all up to this date 127 cases. At the time of the outbreak of the epidemic, July 26th, there were in the building 649 prisoners, of whom 435 were females, and 214 males. Of the whole 127 cases, 85 were females and 42 males. During the first three days there were 29 females attacked and only three males.

As Chairman of the Committee of Inspection of the Medical Board of Charity Hospital, including the Workhouse, Almshouse, and Penitentiary, it had been his custom to make only occasional visits to the Workhouse, and no report of the outbreak of cholera in this building was made to him until August 2, on which day, as already stated, 33 new cases occurred.

A careful inspection of the building and its inmates was immediately made, and the Board of Commissioners of Public Charities and Corrections was notified of the result, and permission was asked to introduce at once certain sanitary measures. Observing some apparent hesitation on the part of the Board to accept of the sug-

gestions, perhaps on account of the expense it would necessarily involve, the urgency of the case was pressed upon them, and they were assured that if full authority were given to him in the matter, the epidemic could be arrested in three days. "This was said deliberately, and without fear of a failure, because the special causes of the epidemic were apparent to me, as they would have been to any other educated physician, and the remedies were within reach."

Before the close of the day authority was given to Dr. H. to make such changes in the management of the various institutions upon the Island as he saw fit. His orders were issued, and began to take effect on the 3rd of August, but they were not in full operation until the 4th. On the 7th of August there was but one new case, "and the epidemic was virtually at an end."—*Official Rèport of Leroy Milton Gale, M. D.*

The promise was therefore kept. Science and humanity are too much interested in these results to permit us to withhold the testimony of the Board of Commissioners upon this point. It is as follows: "And in this connection it is proper to advert to the invaluable services of Dr. Frank H. Hamilton, the Chairman of the Committee of Medical Inspection of the Board. When the cholera broke out, isolated hospitals were, at his instance and under his directions, established. A code of sanitary regulations, formed by him, was adopted, and radical changes in diet, and in the forms and hours of labor, at his suggestion, were made. To his resolute and intelligent action may be attributed the arrest of the disease, and so confident was he of the efficacy of his proposed treatment, that he foretold the number of days in which the disease would disappear. The last case occurred within twenty-four hours of the period he had designated." —*Annual Report for* 1866, p. xv.*

* Not exactly correct; but the epidemic had ceased from August 6, to September 23—28 cases in forty-eight days—or a little more than one case for every two days.—*H.*

General Causes of the Epidemic at the Workhouse.

The weather was exceedingly hot, and continued so for some time after the cessation of the epidemic; and there was infection abroad, as shown by the prevalence of cholera in the city and in other places.

General Condition of the Workhouse and Island.

"The Island is at all times, in a great measure, free from malarial and other atmospheric poisonous influences. It is usually well supplied with water from the Croton mains. The diet is better than is elsewhere supplied to penal and purely eleemosynary institutions, so far as my personal experience with other similar institutions enables me to speak. Great attention is paid to cleanliness and to the ordinary hygienic rules, but there are no properly constructed water-closets attached to the Workhouse. Probably the omission has been justified on account of the proximity of the river-side closet."

Three or four weeks before the epidemic, there was an epidemic of diarrhœa, etc.

Special causes which contributed chiefly to propagate the Cholera Epidemic in the Workhouse.

1. Many of the cells were overcrowded, four persons in some cases occupying one cell of 16 feet by 8. This overcrowding was especially in the female cells.

2. Open buckets were used at night for the excreta by both males and females, and these remained in the cells until morning.

3. During the day most of the women remained within the building sitting in the sewing-room without employment, while large numbers were crowded into a single room making hoop-skirts. A few only were employed in scrubbing, washing, etc. The men were occupied out of doors.

4. The water-closets used during the day by the women were in two empty cells on the third floor of the building, in each of which were two or three tubs of the size of half

barrels, placed under properly constructed seats. These tubs were emptied at night into the river, filled with water and left out twenty-four hours, other tubs taking their places during the next day. "Most of the day these closets were thronged with women, part of whom came of necessity," but many came merely to avoid work, and to meet and converse with their companions.

4. The soiled clothes and bedding were put in water over-night, sometimes piled up without water, and subsequently washed in hot water.

6. Mush and molasses constituted the evening meal, and there was not a sufficient supply of vegetables. The bread was sour.

During the month of July, the water pipes conveying the Croton water under the East River to the Island were more than once broken, which in some degree interfered with the thorough cleansing of the Island and of the buildings.

Hygienic Changes instituted at the Workhouse.

1. The women were distributed and made to occupy as far as possible, separate cells. About 100 were discharged.

2. No buckets were allowed in the cells for excreta, and neither the doors of the cells nor the outer doors of the Workhouse were locked at night. Those having occasion to rise in the night were required to go to the river-side closets, to tubs placed outside of the building, or to the hospital.

3. During the day none of the unemployed women were permitted to remain in the building; the hoop-skirt shop was closed, and the women employed on this contract were sent into the grounds and allowed to sit in the shade of the buildings or of the trees from 4 A. M. to 8 P. M.

4. The cells heretofore used as water-closets were cleansed and closed, all the men and women being required during the day to resort to the river-side closets.

5. All clothes and bedding used by hospital patients were ordered to be removed promptly, and to be placed in large vats containing boiling hot water, and not to be washed until they had been in the water several hours.

Through some inadvertence, the orders given for the management of the laundry were not literally carried out for several days. The clothing, instead of being at once placed in boiling water, was submerged in cold water for a few hours, often over night, and then treated with hot water. The result of this omission was that of 34 women employed in the laundry, 12 died, 35 per cent. of the whole number.

6. At breakfast, coffee was substituted for rye-coffee; potatoes were added to the meat dinner; rice and tea were substituted for mush and molasses for supper. (Dr. O. Dwyer reported that the resumption of the mush and molasses at the Penitentiary, a few weeks later, considerably increased the amount of diarrhœa.)

7. A large proportion of the cases being developed during the night, and most of the inmates, both men and women, being accustomed to the free use of stimulants, a "night-cap" was ordered for each person composed as follows: Whiskey, one fluid ounce; Tr. Capsici, fifteen minims; Aquæ, three fluid ounces; M. For those who had already some diarrhœa, Tr. Opii m. xv. was added.

8. Stoves were placed in the rooms occupied as hospitals, and fires were kept in them constantly to improve the ventilation, the windows being kept constantly open.

9. Disinfectants were employed freely everywhere they might prove useful. But cleanliness being enforced, there was very little of these agents used.

The isolated hospital tents referred to in Report of the Commissioners were for the inmates of other buildings.

Quite a number of cases were noted where choleraic symptoms rapidly supervened upon a debauch, or the free use of alcohol under the impression that it exercised a prophylactic influence. Several of these were less than

ordinarily exposed to recognized sources of infection. Of the nurses who were seized, a debauch had very uniformly preceded the attack. One nurse—who was very faithful in the performance of her duties—experienced choleraic symptoms on three different occasions, after having on each time too freely taken whiskey to support her strength.—*The Sanitarian.*

THE OBSTETRIC JOURNAL OF GREAT BRITAIN AND IRELAND.

Some months since, it was announced that there would issue from the press, on or about the 1st April, a monthly journal, devoted to Obstetric medicine, and the treatment of diseases of women, to be under the editorial charge of Drs. Aveling and Wiltshire. The scheme was supported by nearly all the prominent obstetricians of Great Britain and gave promise of being a valuable addition to the medical periodicals of the day.

We learn from the prefatory note published in the first number "The establishment of this journal, was suggested "by two facts. The large number of medical practitioners "interested in midwifery and the treatment of diseases of "women and children, and the insufficient space allotted "to these subjects in the general medical periodicals." Without entering into the question whether insufficient space is allotted to these subjects by the general medical press, we can alone heartily welcome the appearance of this periodical and believe fully that it is destined to do much good in forwarding the best interests of a most important branch of the healing art.

We have received the three first numbers of the American reprint of this journal brought out by the enterprising publisher Henry C. Lea of Philadelphia. The journal as received is a literal copy of the English periodical most creditably got up on tinted paper with an American supplement edited by Dr. W. F. Jenks.

Lecture on Hypochondriasis, delivered at St. Mary's Hospital, June 25th, 1873. By THOMAS KING CHAMBERS, M.D., Honorary Physician to His Royal Highness the Prince of Wales; Consulting Physician to the Hospital, &c.

MISERY! — that is the subject of my lecture to-day. Perhaps you think you have had enough of that. The shadow of pain has been hanging like a gruesome cloud over the whole weary way through the systematic courses of medicine and surgery. But bodily pain is not misery; you must have seen patients jocose, or even cheerful, though daily racked with tortures, the sight of which has brought tears into your eyes. I would even go so far as to say that bodily pain does not cause misery in a normal man, at any rate, not misery at all comparable with that which arises independent of pain. Yet we lavish our pity upon the one, while we allow the other often to excite a feeling not far removed from anger in our breasts. Of course we sympathise with that of which, in minor degrees, we have all experience, while we (that is, the healthy-minded among us), fail to understand that of which our senses are not cognisant. Normally, the mere process of living is, of itself, a positive delight, a continuous delight, with comparatively short interruptions, arising from sickness and death; and the smile with which we greet everybody and everything is not taught by convention, but by instinct, or hereditary reason. Misery is abnormal; a disease, a terrible disease, as those who have felt it know well. It is constitutional disease, idiopathic, not dependent on external circumstances for its origin. Disappointment, loss of wealth, loss of husband, wife, children, friends, of health, character, or social position, are often alleged as causes, and sometimes they may be the final excitant; but shrewd observation will show that usually they are mere pretexts, offered in explanation of a mystery. Thanks to the All-merciful, all these things are borne daily by millions with cheerfulness:

"Some natural tears they drop, but wipe them soon," and involuntarily protracted sorrow is always a pathological state.

This state is called, in the nomenclature of the College of Physicians, "Hypochondriasis," and is rightly classed as a disease in which there is disorder of the sensitive parts of the nervous system, but no disorder of the intellect. For the patient feels all wrong, but understands all right. There is no perversion of the understanding, such as frees the insane from the responsibility of moral agency. The understanding, indeed, is usually very clear, so that it is easy, in the case of educated persons, to demonstrate to them the true nature of their malady, and to elicit evidence that it is idiopathic, and independent of, if not anterior to, the accidental causes assigned. I mean, it is easy to a persevering and earnest will.

The distinction drawn, as above mentioned, is of the highest importance to us as practitioners of general medicine, and to our patients; for while we are inclined, and I believe do right, to hand over those whose intellects are disordered for treatment by the special means which our alienists apply so skilfully, hypochondriacs are better kept in our own care. They are not *alienati mente*, and are injured by being treated as such.

Yet, though the College has acted well in drawing a distinct broad line between hypochondriasis and disorder of the intellect, the nomenclature does not quite satisfy me in its definition. The disturbance of the bodily health is put so prominently forward, that the reader is led to expect to find it preceding the deranged feelings, whereas, in a great many cases, no such sequence of events can be shown. The pasty tongue, the difficulty of swallowing, the loss of appetite, the painful and slow digestion in the stomach, the flatulence in the bowels, the weak, languid circulation, the loss of adipose tissue, and in long cases the atrophy of heart, liver, pancreas, are consequences of the imperfect innervation.

The most vivid picture extant of an hypochondriac is contained in the autobiography entitled, *Grace Abounding Unto the Chief of Sinners*. It is a history of the feelings of "God's poor servant, John Bunyan," as he styles himself. The plain tale of his inward misery, from boyhood up to his imprisonment in Bedford Jail, explains many passages in his larger work, *The Pilgrim's Progress*, which do not accord with the psychical experiences of healthy Christians. I refer especially to the Slough of Despond, the Man in the Iron Cage, the description of Doubting Castle, Mrs. Diffidence, and Giant Despair. He says, in words which naturally break into poetic rhythm, "I beheld the condition of the dog and toad, and counted the estate of everything that God had made far better than this dreadful state of mine." No healthy man ever felt like that; but to the hypochondriac, alone in creation, no past, no future, can be so bad as the present—*hora novissima, tempora pessima.*

One feature especially noteworthy is the suddenness of the attacks. Bunyan describes himself as arrested by one in the middle of a game of tip-cat, so that he left the cat he was about to strike on the ground. But on "returning desperately to his sport again," he felt his soul "possessed," as he words it, with despair of ever attaining happiness. The suddenness of invasion is most striking when the patient is in the company of others, as Bunyan was. He may be in the middle of an ordinary conversation, when a dark cloud seems to overshadow him, and henceforth all is gloom and unutterable misery. Perhaps, under such circumstances, the attention is diverted from minor degrees of disease, and is drawn towards it only when it has got to the worst; for, in solitude, a more gradual progression is often observable.

A vague alarm of impending evil very frequently accompanies the misery, and sometimes (as in Bunyan's case), it takes the concrete form of a dread of hell, and thoughts about devils. In dreams they assume a definite

shape, and seem trying to draw the sufferer along with them. Sometimes there is a dread of death; but I think it is exceptional, and that when you find such a fear in a diseased degree, the case is likely to turn out one of ordinary insanity, delusion of the intellect supervening. More commonly death is looked forward to as a relief from misery, and would be considered not unwelcome. In such cases patients will sometimes commit suicide, not like madmen, in a sudden whim, or uncontrollable impulse, but in a deliberate manner. Indubitably, suicide would be much more common, but for the reason which Hamlet, the prince of hypochondriacs, rightly assigns. "The dread of something after death," acts as a powerful safeguard. I wish Shakespeare could have truthfully written "The *hope* of something after death," which is a much better reason for avoiding suicide; but such a feeling is inconsistent with the character he is painting. While the fit is on, the only motive influence over the soul is fear, and that, I believe, preserves many an one from self-destruction. It is a stupid and a blasphemous act to hurl back the Creator's best gift in his face, and it well deserves the disgrace and punishment which men attach to it. But irrational it is not, for the hypochondriac may with reason argue that he had rather be or do anything than "grunt and sweat under this weary life." Nay, more if a man be so credulous as to think the grave the end of his being, and can imagine "this sensible, warm motion, to become a kneaded clod," it is difficult to answer his arguments for extinguishing himself. Suicide is a cure for hypochondriasis, as a cure the hypochondriac seeks it, with a full knowledge of the nature and bearings of the action, and therefore he should be held entirely responsible. To call the deed one of "temporary insanity," where there is no evidence of delusion, is pure effeminacy. Some sciolists have lately promulgated what may be called an "euthanasian" creed, advocating both suicide and murder. Yet mad they cer-

tainly are not, and are guilty of any consequences which may follow the paradoxical dogma which they are vain enough to print. They are shown up in *The Pilgrim's Progress* under the guise of a wicked old woman, Mrs. Diffidence, who suggests "knife, halter, and poison," as a cure for the pilgrim's doleful state. Hypochondriasis never disposes the patient to injure others. Without disorder of the intellect, evidence of which may be wormed out, homicidal tendencies do not appear, so that you have no right to lock the poor man up in a madhouse on the grounds of social policy.

Hypochondriasis sometimes appears very early in life. John Bunyan suffered from it when he was a mere child, and quite as much when he was a blackguard swearing tinker, as after his marriage and conversion. Oftener it comes on in manhood, rarely after the meridian of life. Its early supervention would be enough to show its hereditary nature, but you can almost always obtain individual proof of the same, as it is not made a family secret, like madness. Sometimes insanity, more often hysteria, may be traced in sundry of the kindred, but most frequently chronic invalidism, or something which puzzled the doctors but did not shorten life, is the form which the disease assumes in the domestic records.

The intellect of hypochondriacs is usually of a superior order. The author whose case I have quoted is an instance in point. Again, Shakespeare makes Hamlet a courtier, soldier, scholar, "the observed of all observers;" and Shakespeare is never wrong in such matters. The patients who come to us are often shrewd men of business, pushing inventors, judicious speculators, so long as the disease does not interfere with their usefulness. If skaters, they are distinguished by cutting the most elaborately graceful figures; if sportsmen, they are deadshots. I select these instances purposely, because sedentary and scholarly habits have been popularly associated with the disease; but I think the association arises from

the accident that the higher intellects are naturally attracted to literature. I have not found hypochondriasis oftener preceded by excess of brain-work or of desk-work, than by athletic training.

A common symptom in hypochondriasis is a temporary loss of power in the voluntary muscles of a part, or more often of the whole body, *paresis subitanea*. The patient is coming up hill from the railway station to dine with a friend, when he suddenly finds himself unable to proceed. Bunyan makes Giant Despair lose the use of his hands at a most lucky moment for the pilgrims, just as he is rushing at them with a club. In my experience, the lower extremities are most affected, but still the paralysis is of the partial character indicated ; the Giant is described as withdrawing quietly, and when the legs are seized, the patients can still crawl along. There is no loss of sensibility, not even giddiness. The patient can stand, but he cannot go. He does not fall, but from utter prostration and weariness he throws himself into the nearest resting-place ; and there he will remain, if allowed, till the misery gradually passes away, or is relieved by the stimulus of food.

Bunyan parenthetically remarks, that these attacks of paresis came on when the sky was bright : " he sometimes, in sunshiny weather, fell into fits : " a very shrewd observation, and one not likely to occur to any but either an actual sufferer, or to the sensitive penetration which always makes real genius hit the bull's eye of fact. Listen to Shakespeare's hypochondriac. " I have of late (but wherefore I know not), lost all my mirth, foregone all custom of exercises ; and indeed, it goes so heavily with my disposition, that this goodly frame, the earth, seems to me a sterile promontory ; this most excellent canopy, the air, look you—this brave o'erhanging firmament—this majestical roof fretted with golden fire, why it appears no other thing to me than a foul and pestilent congregation of vapours," says Hamlet, pointing out of window to a

bright starry sky. A common-place artist would have put in a background of mist and lowering clouds; but our poets know better, and rightly describe a high state of barometer as an aggravating condition.

It is very seldom that an hypochondriac escapes without the general misery being localised in pain of some part or another, either continuously or at irregular periods. An observant person can usually detect the nature of the pain by noticing that it is not antecedent to, but consequent on the mental distress. Bunyan says, "I felt such a clogging and heat at my stomach, *by reason of this my terror*, that I was, especially at some times, as if my breast-bone would have split asunder." This is the pain in the hypochondria, whence the disease gets its name. The "clogging and heat" is very graphic; the sharpness, the stabbing, the aching characteristic of neuralgia, are not found here, but instead, a dull sort of burning sensation, deeply seated in the interior of the body. It moves about, but slowly, and when it begins to move is usually moving off. Sometimes, what the patient calls a "scratching," or a "scraping," and which pathologists Latinise into "formication," § is felt more superficially than the deep burning. The back of the head and neck, the soles of the feet, the palms of the hands, are favourite points for this sensation; but some also describe it as occurring in the abdomen. A feeling of weight in the rectum, in the uterus, or in the bladder, is often experienced, though they may be all no fuller than natural.

The *paresis subitanea*, which I described in the muscles of the limbs, still more frequently affects the involuntary

§ "Formicatio" means properly pain like that caused by the bites of ants, such as arises in the action of cantharides on the skin. I do not think that it describes well the sensation in hypochondriasis. I have always found sufferers repudiate the comparison of their feelings to the bites of ants or the stinging of a blister. For obvious reasons, I never use the word *formication* in their presence.

fibres of the intestinal canal. The peristaltic movements become sluggish, and do not press upon the contents of the bowels. The portal veins fail to re-absorb the air thrown into the area of the tube, and so it becomes rapidly distended. If the air pass off, it is evident, from its odour, that it does not consist of the gases of decomposition, but is mostly atmospheric and carbonic, exhaled from the blood. But the air rarely does pass off by the external vents; it gives a great deal of trouble by remaining in the bowels, distending them inconveniently and painfully. Poor John Bunyan seems to have been so blown up, that he says he feared he was going to suffer the fate of Judas Iscariot, and "burst asunder in the midst." In process of time the whole may be re-absorbed, without necessitating any explosion.

If the paresis of the bowels be long continued or frequently repeated, it retards digestion, and the food decomposes and fills the abdomen with fœtid gurgling gases, there are a nauseous taste in the mouth, eructation, and malodorous flatus. But these cases are by no means so much the rule as to make indigestion an essential feature of hypochondriasis. When the flatulence is most marked there is often much confusion and giddiness of head.

A feature which is almost universal in long cases of hypochondriasis, is loss of weight during the attacks. I am not sure whether it precedes or follows their commencement; but at all events it disappears very rapidly immediately on a normal condition of feeling being recovered, in such a marked way as that the patient considers the change a cause of restored health. In his *Grace Abounding*, Bunyan describes himself several times as suffering from this symptom — as he words it, "inclining to a consumption, wherewith, about the spring, I was suddenly and violently seized with much weakness in my outward man." And a few pages afterwards he speaks of being "very ill and weak," presumably from a similar cause, when his spirits suddenly revived, and he

thought of the angels carrying Lazarus into Abraham's bosom. Then he mused with comfort on "O grave, where is thy victory." "At this," he goes on, "I became well both in body and mind at once, for my sickness did presently vanish." He typifies this symptom in the person of one of the prisoners in Doubting Castle, "Mr. Despondency, who was almost starved to death."

The male genital functions are frequently much deranged in hypochondriasis. Their condition may be described as exhibiting a want of harmony. There is at one time desire without erection, and at another time erection without desire, and sometimes emission without either. This distresses patients very much, for it affects, or is supposed to affect, their social relations to others, and it often leads them to submit themselves to injurious local treatment at the hands of dishonest and ignorant practitioners.

The urine of hypochondriacs is apt to be deficient in due acidity, and variable in specific gravity. Crystals of oxalate of lime often float in it, and an abnormal quantity of renal and vesical epithelium. Mucus also often is formed in excess in the urethra, and is squeezed out during straining at stool, or even stains the linen. These symptoms are all exhibitions of imperfect nutrition, and are analogous to the leucorrhœa of the female. I have, however, known the urine to contain an unusual amount of urea; and then I have found that the patients have been gorging themselves with meat in excess of appetite, sometimes from gluttony, sometimes on theoretical grounds.

The impression that they are the victims of some organic lesion is the well known commonest, and often called the distinctive, feature of hypochondriacs. Feeling general misery, often accompanied by local pain, they construct a theory to account for the same; and, as they are for the most part intelligent and ingenious persons, the theory runs a chance of being a very plausible one, and of convincing themselves and their friends, and often

their medical advisers. They have been led into a wrong judgment, doubtless, but so have the doctors; but there is a most distinct broad line to be drawn between an error of this kind and one that is the result of hallucination, illusion, or delusion. The common sense of mankind is, as Dr. Maudsley points out (Reynolds's *System of Medicine*, vol. i. p. 20), the final court of appeal for what constitutes evidence of insanity; and you will find that the impressions of hypochondriacs regarding their bodily health are not repugnant to the common sense of mankind. This is an all-important test, for we often have people coming to us and complaining of things which are utterly preposterous—the mere statement of which is a proof of their non-existence. I refer to such a statement as that made to me by a tradesman's wife, that she had become solid, and that there was no space to contain the food, which nevertheless she ate; or that of a banker, that his abdomen was full of tadpoles; or that of an idle country gentleman, that some stones, which had been thrown in his face weeks ago, had gone down into the stomach and could be heard rattling. All these turned out lunatics in the end, and so, I feel sure, must almost all those laughable but misplaced examples with which writers on hypochondriasis are wont to enliven their treatises. Of course instances occur where the diagnosis is difficult; but they are really rare, and the moral of them is, let us not be in too great a hurry to make the diagnosis.

One usually employs the masculine article in speaking of hypochondriacs, but women are not wholly exempt I have now a mother and daughter under my care for the disease, the nature of which they thoroughly understand, and are learning to subdue. Their intellects are of a superior order, and perhaps what one would call masculine in a favourable sense; I mean, they are not the least emotional or hysterical. It may be noted that Bunyan places one, and only one, woman in Despair's dungeons.

Her he does not describe; because, indeed, he knew nothing of the other sex "but by their apparel" beyond his own family circle. He says he was "shy of women." "The common salutation of women I abhor; 'tis odious to me in whomsoever I see it. Their company alone I cannot away with." So he naturally did not receive their confidences.

It is a great comfort that hypochondriacs rarely if ever have that love of lying which angers us so much in hysterics. It is true that Hamlet shams madness; but that is for a definite politic object, as anybody else might sham, and not for the purpose of deceiving, like a hysterical girl. Now, hypochondriacs will argue with you interminably, but they will not swindle you; neither have they that unamiable suspiciousness of madmen: indeed, they are usually confiding patients. A few years ago, the wife of a hydropathist, who did not believe in her husband, said to me that she was obliged to return home, because the house was full of "the lunatics," meaning their patients. I said it was a wrong word to use—not only because it is stupid to revile one's bread and butter, but because lunatics are too suspicious to be profitable pigeons, and that her nest was more likely to be feathered by faithful hypochondriacs.

The corporeal symptoms so closely resemble those which are produced by excessive exertion, that I should conjecture the pathology of the two states must be the same—namely, a drain upon the voluntary nerve-force beyond the supply. In health, this arises from a temporary and intentional excess of the drain; in the disease, it arises from deficient supply. The part in which changes recognisable by the anatomist would be found, would be the grey matter of the nervous centres probably; but the anatomist never gets a change, for hypochondriacs are usually cured of their life-borne misery by the supervention of the lesions, which finally prove fatal, and which are generally quite unexpected; or, haply, they are carried

off by some acute disease, as Bunyan was by an ardent fever caught in riding from London to Reading and back in stormy weather, on the errand of reconciling a prodigal son to his father.

The only anatomical lesion I know of which produces hypochondriasis is of the rectum, in the shape of piles or ulceration ; and it is by no means common. However, it is certain that the nervous condition may be cured by curing the local.

The best general treatment is that which is the most rational deduction from the pathology. It may be divided into *physical* and *moral ;* and we will consider the physical first, because it is the easiest prescribed. The point of prime importance is the due nutrition of the nerve-substance, and that is effected by keeping up in the body a treasury of freshly renewed adipose tissue. In two instances since Christmas, I have had the remark made by patients that an increase in weight was coincident with a renewal of healthy thought and feelings. This store of adipose tissue, as a basis for the molecular growth of nervous matter, may be accumulated by leading up to the acme of cod-liver oil, through the ladder of Devonshire cream, bacon, olive oil, pancreatic emulsion, marrow pudding, or any other oleaginous substance which may be invented for educating the gustatory nerves to bear our fishy friend. At the same time, it is desirable to bring the digestive functions into good working order by means of strychnia and henbane, *secundum artem.* Some persons will not grow fat without a large amount of bodily rest ; and it is necessary to enforce it upon them by medical prescription. I have found fidgets more often interfere with the cure of hypochondriacs than laziness. Even the most untoward accompaniments will sometimes not diminish the value of rest. The being shut up as a Nonconformist for twelve years in Bedford Jail seems to have cured John Bunyan, though it was a filthy and noisome "den," as he justly terms it. He says : "I never

knew what it was for God to stand by me at all times, as I have found him since I came in hither;" and confesses that he passed his time there "in much content." It was at this period he was lighthearted enough to compose the characteristic and descriptive anagram of his name, Iohn Bunyan, "Nu hony in a B." Indeed, he is a bee full of new honey. Nor does it seem that he relapsed afterwards. The fact is, that he was well fed up by admiring friends, and entered on his true vocation of writing the life-dramas which enshrine him in our hearts along with Homer and Shakespeare and "George Elliot."

I have been the more particular in alluding to the importance of rest, because all non-professional and some professional authorities exalt the opposite course—namely bodily exertion, as a panacea for hypochondriasis; but it certainly does not answer. Beguiled by these theorists some years ago, I put them to the test. Corresponding with a hypochondriac, whom I had not seen, in the North of Scotland, I told him I would give him no more advice unless he walked fair heel and toe all the way to London. In a few weeks he presented himself, having conscientiously obeyed my prescription; but, I am sorry to say, he was decidedly the worse for it, and, as may be imagined, not grateful.

But the excess of rest is apt to produce constipation; and if the strychnia and oil be not sufficient to obviate that, an habitual aid must be given to the peristaltic movement, and to the liquefaction of the fæces by green vegetables, salads, or even by such drugs as taraxacum, or Seltzer water taken as a regular diet. Powerful or occasional purgatives are injurious. I have found a very small dose of belladonna—say one-eighth of a grain of the extract at most—combined with half a grain of aloes, serve the turn very well. What is wanted is, not a free action of the bowels—for moderate sluggishness is normal—but a prevention of obstruction.

In the moral treatment of hypochondriasis, Bunyan is an excellent guide. You remember how, when Christian and

Hopeful were in the dungeon, in doleful case indeed, the former suddenly be thought him that he had a key in his bosom called Promise, with which he picked one after another the locks that lay between them and liberty. "And so they went up to the mountains, to behold the gardens, and orchards, and fountains of water, where also they drank and washed themselves, and did eat freely of the vineyards." There is no key equal to it; it is somewhere in every body's pockets; but the prisoner must find it himself, and the medical adviser seldom has an opportunity of helping him. Nevertheless, I trust that no sufferer will come across such miserable comforters as our poor hero. He tells us, in *Grace Abounding*, "I took an opportunity to break my mind to an ancient Christian" (I should call him an old Job's wife), "and told him all my case. I told him also that I was afraid I had sinned the sin against the Holy Ghost; and he told me he thought so too." It is all very well to agree with a maniac's whims, but a hypochondriac may claim a right to be reasoned with, and John Bunyan was badly used.

Several other hints equally suggestive may be found in the *Pilgrim's Progress*. Though the pilgrims managed to escape, the Giant was not destroyed, but afterwards fell under the swords of Mr. Greatheart, Mr. Dare-not-lie, and their companions. In fighting to make others happy, the suffering soul is drawn out of itself, and conquers its own foes. You may do much by interesting hypochondriacs in thoughtful works of charity, and by leading them to ornament life with beauty and pleasure. They must hate ugliness in any shape, not for their own sake, but for that of others.

Bunyan feels very clearly the antagonism between hypochondriasis and the æsthetic life. Puritan though he is to the backbone—fanatic, nonconformist, martyr, satirist, woman-hater, a foiled reformer, at war with the age, and getting the worst of it—yet he had the true poet's sympathy with all that is human; and he celebrates the

dinging-down of Doubting Castle in a fashion that his sour-faced coreligionists would have denounced as

> "Idolatrous and pagan,
> No less than worshipping of Dagon."

For "Christiana, if need was, could play upon the viol; and her daughter Mercy on the lute. So, since they were so merry disposed, she played them a lesson; and Ready-to-halt would dance. So he took Despondency's daughter, Much-afraid, by the hand; and to dancing they went in the road. True, he could not dance without one crutch in his hand; but I promise you he footed it well: also the girl was to be commended, for she answered the music handsomely."

What is Ready-to-halt's "crutch," which he could not lay aside? The author leaves us to interpret it, each according to his own experience; as for me it shall be the medical treatment, which cannot safely be laid aside, even when the disease appears subdued by the moral. One crutch—that is, half doses—may be sufficient; but the patient should be warned that his disease is constitutional, and that he is liable to relapses. When Ready-to-halt went over the dark river, he bequeathed his crutches to his son; and I hope they have been of use to him.

I am always very unwilling for a patient to give up his regular occupation; for this brings him into social relations with others, and he may think of them instead of himself. Doubtless, worrying hard work may be a severe trial, and be bad for him; but idleness is much worse. It was by going out of their way, and falling asleep, that the pilgrims fell into the clutches of Giant Despair. I have had as patients two of our professional brethren, confirmed hypochondriacs, who were perfectly well and happy so long as they were engaged in that most trying of all lives, the charge of lunatics—the one in a private capacity, and the other as assistant in an asylum. When unemployed, their misery was frightful.

With respect to the palliative treatment of the pains in hypochondriasis, I must earnestly entreat you not to give opiates. An increased dose is demanded with alarming rapidity; and, when you have once begun, there is no stopping. With opiates I include alcohol. The only admissible cases for the employment of this class of drugs are those where there is an actual deficiency of sleep, confirmed by independent evidence. But the sedative that is chosen must be given in very small doses, and, above all, must not be increased.—*British Medic. Journal.*

NOCTURNAL INCONTINENCE OF URINE CURED BY CHLORAL HYDRATE.—Dr. Girolamo Leonardi has recorded in *Raccoglitore Medico* five new cases of the above, in which the use of a solution of chloral hydrate was entirely successful. The patients were all aged eight to ten, and the disease had resisted various means which had been previously employed. In all the cases the cure was effected most promptly, and was permanent. The dose was from seven to fifteen grains in about an ounce and a half or two ounces of water, taken at once or in two doses. In some cases the very first dose was successful, in others five doses were necessary to effect the cure. The drug was administered in the evening, two hours at least after food; and Dr. Leonardi strongly recommends that the patient should drink as little water as possible.—*Lancet.*

ENLARGEMENT OF THE TONSILS AS A CAUSE OF NIGHTMARE (*British Medical Journal*, June 7, 1873):—J. Warrington Haward, F. R. C. S., relates some cases of nightmare occurring in children, resisting ordinary methods of treatment, and increasing in frequency and severity, which were at once permanently cured by the

removal of a portion of the tonsils. As these glands were enlarged, he was led to believe that the obstruction to respiration and consequent cerebral congestion were sufficient to produce the disorder. Nightmare due to gastric irritation or dentition occurs, as a rule, only once in the night, while that due to enlarged tonsils often recurs several times in the same night, and is invariably observed to be aggravated by the child catching cold.

FATAL POISONING FROM CHLORATE OF POTASSA.—In the *Pacific Medical and Surgical Journal* for June, Dr. A. M. Ferris gives a case of supposed poisoning from chlorate of potassa, where a "large spoonful" of the salt was swallowed by mistake, and was followed by congestion of the surface, blue lips, cold extremities, inability to empty the bladder, hæmaturia, and death. At the post-mortem examination the auricles were found filled with large coagula, and the ventricles empty and contracted. The lungs and abdominal viscera were healthy. As the brain and kidneys were not examined, absolute proof appears to be wanting that the symptoms were really due to the salt of potash.

DELIRIUM TREMENS AFTER CHLORAL-DRINKING.—Dr. George F. Elliott (*Lancet*, May 24) relates an interesting case where the excessive use of chloral produced inaptitude for exertion, muscular pains in the upper extremities, loss of appetite, great thirst, constantly fetid breath, constipation, and finally a semi-comatose condition. The patient, a man æt. 35, had been in the habit of taking fifteen grains of opium daily for many years, but had for a few weeks substituted chloral, taking two hundred grains in the twenty-four hours. Its withdrawal produced at first sleeplessness, and then all the phenomena of delirium tremens, which subsided under the use of large doses of tartar-emetic and opium.—*Medical Times*.

CANADA

Medical and Surgical Journal.

MONTREAL, AUGUST, 1873.

THE COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

In our last we published a synopsis of the proceedings of the Medical Council of the College of Physicians and Surgeons of Ontario, taken from the Toronto *Globe*, confining ourselves to the report of the bill as amended, of the present Ontario Medical Act, and which will be submitted to the Local Legislature during their next session. In this amended bill, we notice that the College propose taxing the profession generally, in the Province of Ontario, for the purpose of defraying the working expenses of the College. This is not objectionable and we suppose will not receive opposition. The present is certainly a more rational scheme than the one formerly proposed, which was to issue an annual license, the defaulter being liable to all the pains and penalties of an unlicensed practitioner, and the onus of proof as to his having taken out his annual license and having paid his annual license fee, resting, not with the College, but with the defaulter. We thought at the time, that few men if they carefully looked into the subject would submit to such an oppressive act. Pay the annual tax certainly, support the College, by all means, but not at the hazard of being declared an unlicensed practitioner and forced to prove the fact of being licensed, or being summarily condemned to pay a fine of one hundred dollars or of submitting to imprisonment for the space of three months in the common gaol of the district, if unable to pay the fine. We always thought that the principle of British Equity was to regard an ac-

cused innocent until proved guilty; but the College in its bill submitted at the last session, which was fortunately withdrawn, instituted a new rule of equity by stating that the accused was to prove his innocence, and, if he failed so to do, he should be subject to all the pains and penalties imposed by the Act.

It strikes us very forcibly, that a good opportunity is offered for the Ontario College to secure an act, which would be acceptable to the other provinces of the Dominion, so that we could amalgamate and have a central examining board for the whole country. The old saying that union is strength is well illustrated in the case of our medical institutions. We in Canada are divided, and in consequence we are weak, possess small influence, and no power. A bill was submitted to the profession some years ago but it was not acceptable, or rather was not accepted, it was regarded as a McGill College affair, a sentiment expressed to the writer by one amiable little gentleman who admitted the necessity of having a central examining system, but who, when asked why he did not support the bill submitted before the Canadian Medical Association, replied because it was a "McGill College affair." Now if the Ontario Medical Council will take the initiative and secure an act which will be operative in their own section of the country, but which will be adaptable for other sections of the Dominion, we have no hesitation in believing that they will do good and secure to themselves the credit of having moved the first step in the right direction. There should be no rivalry except that of endeavouring to elevate the standard of medical education. If the schools in the various sections of the Dominion unite, and hold out inducements to students in increased facilities for acquiring practical knowledge, a better class of practitioners will be sent out to the country in future. The number of teaching bodies may be increased *ad infinitum*, let us have as many teaching bodies as can possibly hold together, good alone can come out

of it, because although some men will give, as Dr. D. Campbell expressed it in the *Globe*, a rehash "possibly in very bad English," of what the student will find better expressed in Watson, Flint, Carpenter, Holmes, Gross, &c., still the lecturer will, must indeed, increase his store of knowledge by reading, studying and copying out in his own style the remarks of standard authors on diseases that he may have possibly never before read; in this respect at least the lecturer will be benefited. But in advocating the multiplication of teaching bodies, we should insist on having but one licensing body. If this system is adopted the evil, if it becomes one, will very soon be checked, each school or teaching body will soon find its level and the majority will die a natural death from want of support. Medical students as a rule are quite capable of judging for themselves, and where real earnest hard work is accomplished by the teachers of any school, that school will secure the largest share of the students of that year. Then again in the interest of the student, each school should be required to have a full staff of teachers; no one individual should pretend to teach two branches of medical science, and each lecturer should be required to deliver in each session a regular course of a prescribed number of lectures in his branch within a stated period. Any school possessing such requirements should receive full recognition, and students hailing from that school should be entitled to an examination after having attended a stated curriculum. If we in Canada desire recognition by the Medical Council of Great Britain and Ireland on equally favourable terms as we offer to those registered in that country, we can alone expect that privilege by placing our medical institutions on a broader and better footing than is in existence amongst us to-day. Nor need we expect recognition under the present system, if as we before observed, we are divided, and in consequence hold no status, nor can we under present circumstances secure any influence towards that desired end.

CORONER'S INQUESTS.

We have before alluded to the glaringly absurd verdicts rendered by our coroner's courts in Canada, and we have again in the interest of public morality to call attention to this subject. The object of a coroner's court is to ascertain the actual cause of death when it occurs, under suspicious circumstances. No man has a right to deal with his own life any more than he has with that of his neighbour. In either case if he premeditates and carries out the destruction of another person, or of himself, it is murder in the first degree,—the greatest crime that can be inflicted against the laws both of God and man. The only punishment awarded to the self murderer in olden times was to deny him Christian burial; but in these strange times of ours, the man who dares to usher himself unsummoned into the presence of his maker is sure of exciting the sympathising charity of a pitying coroner's jury who return a verdict not in accordance with the facts as they are, but as they ought to be.

Whose is the fault? Is it the Government who refuse to expend the necessary amount to secure efficient and skilled evidence bearing on the case. Is it the Government official in the person of the coroner who burks investigation and suggests a verdict of death by the visitation of God? or is it the jury, who refuse to order the necessary post-mortem examination, and prefer returning a verdict which will at least satisfy a portion of the community, if it is not altogether in accord with the facts as they are.

The sale of poisons by druggists and apothecaries is prohibited by law, except when ordered in a physician's prescription. And furthermore when poisons are dispensed, a poison label should be pasted on the bottle with a death's head and cross bones. It is well known that this law is being constantly set at defiance and we should suppose that it becomes the duty of a coroner if he finds this law has been set at nought by any druggist or apothecary, to intimate the fact

to his jury who try the case, and if the druggist or apothecary is proved guilty simply hand him over to the authorities for breach of the statute. Cases of this kind are constantly coming up before the courts in Great Britain and men are put on their trial on a charge of manslaughter and in some instances severely punished.

In such cases the rights of society are assailed, and the offenders are dealt with as the law provides. These is no hardship in this. If for the well ordering of society and for the safety of individuals a law is enacted, which is made public, and which every good man is desirous of seeing carried out, the offender or controvener of that law has no just cause of complaint if made to suffer for his guilty neglect or obstinate refusal to regard the conditions of that law. What shall we say of the court official or of his jury who wilfully neglect to "well and truly try, and a true "deliverance make between our Sovereing Lady the "Queen," and the individual so implicated whom they are supposed to have in charge and a true verdict render according to the evidence, to which they called upon God Almighty to help them in making. It is a farce, it is worse than a farce, it almost comes within the meaning of blasphemy.

An individual well known in this community was found by our police in a dying state, he was taken to the Montreal General Hospital and shortly after his admission died ; after death in his pocket was found two bottles, one marked aconite, the other belladonna, but no poison label was attached in either case. A hurried inquest was called, no post-mortem examination of the deceased was made, no analysis of the contents of the stomach was ordered, no evidence was sought to be elicited touching the actual cause of death. The man may have died from natural causes, although there is nothing to show that such was the case. The farce of a coroner's inquest was gone through and a verdict rendered of death by disease of the heart. When will our Government apply the necessary pruning knife and put a stop to such monstruous public immorality. Was it to screen the druggist who sold the poison ? possibly he may have possessed a physician's order. Such did not appear in evidence before the coroner's jury and it remains a question unsettled to the injury of the druggist. Such things ought not to be.

CANADA

MEDICAL AND SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Address delivered by JAMES A. GRANT, M. D., F.R.C.S., Edinburgh, J.P. for the County of Russell, President of the Canadian Medical Association, at the opening of the sixth annual meeting of the Association, held at the City of St. John, N.B., on Wednesday, 6th August, 1873.

Gentlemen of the Canadian Medical Association :—

Exactly six years have elapsed since the first organization of this Association. Our meetings up to the present have been in the Provinces of Quebec and Ontario, but on no previous occasion have we assembled under more auspicious circumstances, welcomed as we are to so favourable a position as the City of St. John, the chief commercial centre of the Province of New Brunswick. From the widespread character of our New Dominion, we could not expect the presence of many from distant parts at these meetings; still, on every occasion, this Province as well as Nova Scotia, was ably represented, and it is a recognized fact, that to the activity, energy and ability of the gentlemen from the Maritime Provinces, who previously filled the Presidential chair, this Association owes in a great measure its present degree of usefulness. Thus we observe that in medical science, as well as in diplomatic affairs, these Provinces have taken no small part in the prosperity of the whole Dominion.

It was with no assumed feelings of humility that I expressed at our previous meeting, at Montreal, my lively sense of the responsibility of the duties that devolved upon me, performed with such marked distinction by my worthy predecessors. I trust that my efforts, however inadequate, will not flag in the accomplishment of what is right and best for that *noble profession* in which we should be, in the strict sense of the inspired words, "members one of another." We have a common estate in the science of medicine. We have a good work before us, and we do well to acknowledge our unity and activity in promoting, by these annual meetings, a oneness of feeling in the profession of the Dominion, and the advocacy of medical science in its most progressive form; side by side with the high-toned and intellectual members of the American Medical Association, alike interested in the advancement of medical science on this continent. Relying on the spirit which prompted you to confer on me the highest honour within the gift of the medical profession of this Dominion, I shall endeavour to discharge the duty as your presiding officer, in this position of trust and responsibility. Knowing, as I do, the great value of time in our short sessions, and how much work is expected to be accomplished, I shall confine my remarks more especially to the appropriate subjects of the occasion. At our previous meetings much time was occupied in the discussion of a Dominion Medical Act, an able draft of which was presented by Dr. R. P. Howard of Montreal. After a lengthy debate, the conclusion arrived at was that this measure should rest *pro tem.* That the Medical Profession of the Dominion should be united by an Act in the Commons, is a point warmly and zealously advocated by many of the ablest members of our profession. By the Confederation Act, unfortunately all matters pertaining to Education, as well as to public health, do not come within the jurisdiction of the

Dominion Government, and consequently are strictly matters of local legislation. It is much to be regretted; still, by the consent of the Local Governments, much may yet be accomplished, towards bringing about those radical changes, so necessary in order to simplify, in the widest and most comprehensive sense, subjects both educational and sanitary.

In the Province of Ontario, for the first time in this country, the three bodies — Allopathic, Eclectic and Homœopathic—sat in one council and deliberated upon medical affairs. This union was considered somewhat unique, by many staunch old conservatives in the profession. However, when the fact became known that during those nine years, not a single homœopathist or eclectic passed as such in Ontario, the reason of the union can readily be comprehended. A uniform standard of medical education was established, written and oral examinations demanded from each student, and being compulsory, was the means of directing in the proper channel many who might otherwise have found an easier entrance into the medical profession. Recently the chief of the Homœopathic body has seen fit to withdraw from the Council of Ontario, and we anticipate that extra medical legislation may arise, in order to gratify those who consider their professional claims, somewhat ignored. I merely mention the facts, in order that the profession in these provinces may apprehend the nature of that union so heterogeneous and characteristic. The great aim and object of this Association is to cultivate and advance medical knowledge; to elevate the standard of medical education; to promote the best interests of the profession, and to direct public opinion, as to the duties and requirements of medical men; to encourage a fraternity of feeling in the profession in the most comprehensive sense. With these objects in view, on the present occasion three Addresses will be delivered; one in Surgery, by Dr.

Hingston, of Montreal ; one in Medicine, by Professor Howard, of McGill University ; one in Obstetrics, by Dr. Hodder, of Toronto ; and one in Hygiene, by Dr. Botsford. In addition, a Gold Medal is offered for the best Essay on Zymotic diseases. We anticipate a lively discussion on many points of interest which will doubtless arise out of those papers. We look forward to a greater degree of activity in future in the Association, as general medical topics will occupy the deliberations of all interested in work such as must tend to advance the best interests of our profession in this country.

The subject of medical education is a topic which at every meeting of this Association, has received well-merited consideration. Although somewhat worn, it is of such vital importance that it cannot be too frequently discussed, more especially when we observe the present manifest disposition of the rising generation to rush through a course of collegiate study, and enter into the practice of the medical profession, devoid of that literary training, so requisite in order to develop those powers of thought and observation so necessary, particularly when matters of life and death are concerned.

" A profession that does not equal the age of its educational machinery, that is unable or unwilling to represent its modes of thought, and its forward tendencies in its demands from those who seek admission into its ranks, ceases to be a profession ; because it loses its claims to a scientific character."

Great changes are yearly taking place in the progress of human thought and human industry, and in each department of science, only those methods are recognized, which rest on an educational basis. A defective preliminary education is the first and undoubtedly the great error in the present system of medical education. There should be one standard of preliminary education exacted in all the Provinces, from those who desire to enter the

medical profession. A greater degree of uniformity now exists, than prior to our discussions on this subject. So long as there is a diversity of interest in matters educational, difficulty will attend the bringing about of that uniformity which would be arrived at by a Dominion Medical Act. Important changes are usually slow in their development, yet we look forward to the time when we shall have one chief educational centre, so guiding and directing the medical profession of this entire Dominion, as to build up an enlightened opinion, such as the members of this Association have at heart. While recognizing the progress of medical education in each Province, and the marked ability of those active in imparting a sound medical training, we must await the spontaneous action of all, alike interested, to extend the principles of confederation we now enjoy, so as to unite us as a profession, strengthen our position as a body, and thus increase our sphere of usefulness.

There is a point to which I would now desire to call the attention of this Association, viz., the advisability of having thoroughly trained female nurses. In private as well as in hospital practice we constantly experience a great want in this respect. In each of the large cities having extensive hospital accommodation, some system might be inaugurated by which those desirous of becoming skilled nurses might avail themselves of the facilities offered, and in course of time supply a deficiency now generally felt in the practice of the profession. Such skilled nurses to obtain certificates of qualification and fitness for the position of honour and trust. Every town and city in the Dominion would gladly encourage the employment of such talent, and in that sphere woman would occupy her true position as the administerer of the prescribed medicines, capable as she is of those soothing, delicate and kindly attentions, so necessary at the sick bedside, and so cheering and gratifying to the patient. Miss Nightingale has thus fully expressed her ideas :

"I think the Anglo-Saxon would be very sorry to turn woman out of his own house, or out of civil hospitals, hotels, institutions of all kinds, and substitute men-housekeepers and men-matrons. The contrast between even naval hospitals, where there are female nurses, and military hospitals, where there are none, is most striking in point of order and cleanliness."

In point of sanitary domestic economy, woman carries off the palm, and, by her tidiness and cleanliness, establishes a degree of order seldom seen without her. The cheering look, the tender hand, the watchful eye, and the innate powers of observation, are such, that many little necessaries for the sick patient are carefully thought of, that might escape the sterner powers of the skilled and educated physicians.

The Sisters of Charity, who officiate as nurses in the Catholic hospitals of the Dominion, have by their skill, dexterity and general neatness, earned a well-deserved reputation. Why should not the Protestant Institutions of Canada have a sisterhood alike charitable and philanthropic?

The subject of medical evidence in courts of law is one possessing no ordinary degree of interest. The value of such evidence in questions involving the causes of death, by unknown means, has been long recognised as having attained, with the various achievements of science, a remarkable degree of accuracy.

The position of the scientific expert is one of great importance. His deductions are based on a sound knowledge of human structure; of the laws which regulate the organic functions; of the chemical laboratory in [the system, possessing an action and reaction peculiarly its own; and of the disturbing forces, which induce death, under extraordinary circumstances. The courts of law at home and abroad consider such testimony of great value, and upon it frequently hinge matters of life or death. In

carrying out such investigations both a thoroughly scientific knowledge and a perfectly disinterested mind are necessary. The great aim and object in view is to bring to the surface the principles of truth and honour, no matter how trying the attendant circumstances. Medical men should bear in remembrance the responsible and dignified position they are called upon to fill in medical enquiry. It is not upholding the status of our profession to find its members become partisans in courts of law. Cases of malpractice are not, fortunately, of frequent occurrence, and when such do arise the professional man should never be found occupying an unenviable position, as the instigator of enquiry for purely selfish and personal motives. The whole profession suffers by disregard to ordinary professional courtesy. In courts of law our opinions wield a recognized power and influence, and it is gratifying to observe that in the various medical schools, the subject of medical jurisprudence is receiving well deserved consideration. Through the various medical Societies any professional irregularities in the law courts should be reported, and, by this Association a power exercised that would be productive of the most beneficial results. Regularities as well as irregularities should be noted by those interested in the welfare of the medical profession. In Canada we are yearly enlarging and increasing our medical periodicals, which give evidence of improvement by the abundance, variety and general excellence of the various contributions and selections. How is our Canadian Medical literature to be supported ? This is a question which must strike forcibly the most ordinary observer. In the larger cities as well as the rural districts there are those who, from their position, experience and knowledge of matters medical, could do much towards building up in this country such an expression of opinion as would tend materially to strengthen and consolidate the very best interests of our profession. It is generally acknowledged that there are

more medical journals than receive remunerative support, and that much labor, zeal and self-sacrifice are necessary on the part of both editors and publishers in order to promote the vitality of this form of medical literature. Such efforts are worthy of the highest commendation, for by means of local medical journals many facts are brought to light which otherwise might have passed unrecorded. In Canada, as in Great Britain, hospital reports are yearly acquiring a greater degree of importance, and our medical students are being stimulated thus towards the cultivation of one of the most necessary branches of study—viz., to observe rightly and report intelligently. The country as well as the city practitioner should contribute regularly to our journals. The city with its extensive hospitals, large libraries, well organized medical societies, has very great advantages ; and yet it has been remarked by an able writer in favor of the country medical man, that "original thought is usually best cultivated in comparative solitude." A high degree of excellence in medical journalism can scarcely be expected in so new a field of enquiry, and considering the efforts put forth to fan into vitality such able journals as the *London Lancet* and *London Medical Times and Gazette*, *Edinburgh Medical Journal* and others of like celebrity, we should not be discouraged In the recording of medical facts, it is prudent and right that such should be communicated plainly, avoiding, as far as possible, newly-coined words and abstruse phraseology, which in no way whatever will be acceptable to the plain, common sense practitioner. It is common sense which is required at the sick bedside ; it is this sense after all which achieves the greatest degree of success, educated, enlightened, and elaborated through the various scientific achievements and astounding discoveries, of this age of progress. Every physician in regular practice in city and country, should not only take one or more medical journals, but contribute as well. A large and lucrative practice, a

high and influential position, are not alone sufficient to perpetuate a worthy name and reputation. These are perishable and will die out, when well-timed and well recorded facts, will last and establish true and genuine worth. ZIMMERMAN remarked "that the greatest medical writers of any age were the best physicians." Those who communicate their views should rather be encouraged than decried. It is quite unnecessary to urge upon those who read the best medical journals, the importance of such publications. It is high time that those who fancy they can learn nothing from medical journals, should retire and leave the field to those more willing in every respect to keep pace with the progress of medical science in its various departments. Let us then as an Association encourage and uphold our journals and contribute in every possible way towards building up and sustaining so worthy and so requisite a branch of literature.

In conclusion I would merely advert briefly to the subject of Sanitary Science, identified as it is with national progress and surrounded at present with a more than ordinary degree of interest. We are daily in possession of telegraphic news as to the prevalence in the Southern States of a much dreaded disease. Under such circumstances, I cannot permit this opportunity to pass without calling upon all interested to bring about, in every possible way, such sanitary measures as will tend to lessen the spread of cholera, should we be so unfortunate as to have a visitation of that disease. In the absence of danger, sanitary measures are frequently lost sight of, and even a moderate expenditure is a sufficient cause for the delay observed in carrying into operation the necessary precautions. While there is no occasion for alarm, there is a necessity for action on the part of health authorities. Mr. Simon, the Medical Officer of the Privy Council of England says: "The dangers which particularly have to be guarded against, as favoring the spread of cholera contagion, are

particularly two : first, and above all, there is danger of water supplies, which are in any degree tainted by house refuse or other like kinds of filth, as where there is overflow, leakage, or filtration, from sewers, house drains, cesspools, foul ditches, or the like, into streams, springs, wells or reservoirs, from which the supply of water is drawn, or into the soil in which the wells are situate, —a danger which may exist on a small scale at the pump of a private house, or on a large scale, in the source of supply of public waterworks ; and, secondly, there is the danger of breathing air which is foul with effluvia from the same sorts of impurity."

Filth percolating into well water is a very fertile source of disease. The report of Dr. Ballard, of Islington, concerning the propagation of enteric fever, by milk polluted with enteric fever poison, through leakage into the well which supplied the cattle with water, is conclusive evidence as to the occasional origin of so trying a disease.

The subject of sanitary legislation is one of vast importance inasmuch as by preventable diseases, thousands of lives are lost which might be saved annually. We require fresh air, pure water and clean food ; this brought about, even in a moderate degree, would confer an inestimable blessing on society at large. So strongly impressed are the members of the American Medical Association on this subject, that at their last meeting at St. Louis in June, a strong resolution was passed recommending the establishment of a "National Sanitary Bureau," with relation to the general Government at Washington, similar to the Bureau of Agriculture. It is quite evident, considerable new life must be thrown into this subject, and should sanitary regulations be thoroughly and systematically carried out, by skilled operatives, the advantage which would accrue to this Dominion would be beyond computation. An enlightened opinion would thus be built up, through the exercise of which, we might possibly

effect such sanitary changes, as would be most conducive to the best interests of the general public.

Gentlemen of the Canada Medical Association,—We have assembled here for very important purposes, the eyes of the community at large are upon us, watching, cheering and guiding us along, in the performance of duty. At best we have only a few short years before us, and in the multiplicity and diversity of work, a single life can accomplish but little. Let that little be well done, keeping steadily before us the remarkable and striking aphorism of Hippocrates, which has been paraphrased by one of our greatest lyrics :—

> "Art is long and time is fleeting ;
> And our hearts, though stout and brave,
> Still like muffled drums are beating
> Funeral marches to the grave."

A general view of Hygiene and what its study really includes. An address delivered before the Canadian Medical Association at its Annual Meeting, August 6th and 7th, 1873. By L. B. BOTSFORD, M. D., St. John, N. B.

Mr. President and Gentlemen :—

The mind of man is so limited in its working that when earnestly engaged in the investigation of a subject it is almost certain to lose sight of the due proportion of things, so that one object shall loom up in large dimensions and assume an importance not justified by a broad view of our relations to the whole kingdom of nature and thought.

Hygiene forms no exception to this, though its importance can scarcely be over-rated if we accept its definition to be "*The application of all the elements which conduce to the health and amelioration of society.*" This de-

finition will include every department of physical nature; also the evolution of the moral and intellectual powers of man. The air we breathe, the water we drink, the food we eat, the social habits we form, the climate we live in, the government which presides over us, all exercise their influence and singly or in combination shape our physical state, now degrading us steadily to a lower level, or it may be, as steadily lifting us by the silent operation of centuries to a higher state of being. The effect of external circumstances upon the character of tribes and nations are apparent. Wherever man exists the same causes tend to produce the same results upon his organization, also upon his mental characteristics. It does not matter which view we adopt of his origin. Whether we believe that he starts from different centres, or, whether we attribute his presence to a common source. Great differences do exist, differences which are now peculiar to, and mark the peoples of the various sections of the earth; each section tending to produce certain marked features, and perpetuating these through long periods of time. Scientific investigation will probably trace many links in the chain of causes which produce these modifications; for science will continue to knock until the door is opened and the light shines upon what is now shrouded in darkness. In connection with this general aspect of the question we would ask, whence come the steadfastness of purpose, and the Northern vigor so different from the impulsive character of the South? whence the mental and social states which mark the government in the different climates? So marked and stamped upon the Northern and Southern peoples are these, that, as has been truly said, "We might as reasonably expect to educate the Bengalee into the Mongolian, or the Italian greyhound into the Newfoundland dog as to teach the Hindoo how to enjoy and maintain a free government. Ten centuries would

be uselessly spent in the attempt to annul the climatic effects of fifty or sixty, perhaps a hundred centuries!" General views of this nature should impress upon legislators the assistance they might derive from a knowledge of vital relationships, if they would act upon broad and far-seeing principles. But it perhaps is too much to expect that men will so act until the demand for legislation is too palpable to be overlooked. To the medical man they are important as they will lead him to a more correct estimate of circumstances which may be of service to the well-being of those who commit their health to his charge. For a knowledge of the effects of climates in forming certain temperaments and conditions will enable him to meet the requirements of special cases even by artificial means. Whilst these general causes act over large areas there is a multitude of minor agents which are probably more important as to their influence upon communities and which more or less affect vitality in every locality. Among these, diseases general and local take a prominent stand, and more prominent than disease itself, are those conditions which acting upon the animal economy, weaken its powers of resistance and render fatal what would otherwise be a passing disturbance.

Our profession stands first and pre-eminently first in its qualifications for investigating this broad field of causes. The law-maker may apply his regulating powers when he has sufficient knowledge to act. The divine and philanthropist may urge the consciences of individuals or communities to obey the requirements which reason and law would enforce. Yet, though the legislator and the moral teacher may both help in demonstrating the many evils to be avoided, and both be necessary in the great work of advancing the race,—as to the knowledge of the principles which tend to the amelioration of society, the medical man, by his acquaintance with dis-

ease, by study of the circumstances which enter into its production or prevalence, must occupy the vantage ground in hygienic investigations. He knows best what value to place upon collected data, and is ever seeking for causes to account for them. Most if not all the reports upon sanitary matters have been furnished by him, or he has supplied the data upon which they are based; and in the future this must continue to be the case. Medicine is a noble profession and we cannot too highly esteem the men who adorn it in their endeavors to remedy the ills, and assuage the pains of their fellow-men. And Surgery which grapples with the destroyer and snatches many victims from his grasp stands in the fore-ground of high praise, yet both must be regarded as *specialities* in themselves. Advanced as they are and wonderful as they are, they but contend with the visible results of noxious principles. A much higher, and a more advanced position will be that, which will occupy itself with the numerous and ever working conditions which are the fruitful *sources* of disease and suffering: an ignorance of which may render futile the most masterly performances of the surgeon's hand. Medicine may do battle, even successful battle, with the armed men who spring up from the sown dragon's teeth, Hygiene destroys the seed ere they touch the mother earth. Surgery, like Hercules, may strike off the heads of the Lernean Hydra; Hygiene, Iolas like, sears the roots from which they continually re-issue.

It must be evident to all that in order to establish a true Hygienic system the foundation must be laid by a thorough registration of the deaths which occur; these must be registered not by practitioners as such, nor in limited areas, but must be exacted by a government system, general in its operation and embracing a whole people. That advances are being made in this direction I will quite a few remarks of Dr. Acland. At a late meeting of the Social Science Congress, he said: "We

must find out a way of getting at the precise data of mortality—the rate of life in all civilized portions of the world—such was the astonishing success that the Registrar general was actually able to tell us at breakfast once a week, how the people are getting on, not only in Oxford, London, Manchester and so forth, but he told us also of New York, Vienna, St. Petersburg, of Bombay and of Bengal."

A mere record of deaths can be accurately accomplished by any civil machinery, but will be of little use, unless the cause of death is also ascertained. At this point comes in the importance of the medical profession, an importance increasingly acknowledged when the effort is made to ascertain the remote and subtle influences which intensify the death rate.

As the rate is not uniform (1) but varies in different localities and at different periods, the next step will be

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1 DATE RATE NOT UNIFORM.

	Death per 1000.	1868.	1869.	1870.	Density of population to acre.
Cities.	London....	23.4	24.5	24.0	40
	Manchester	32.0	28.8	27.8	90
	Liverpool..	29.1	29.9	31.1	96

	Death per 1000.	1865.	1866.	1867.	1868.	1869.	1870.	1871
Wards in Liv'pool	Scotland.....	38.6	43.4	26.8	28.2	27.9	29.1	40.7
	Vauxhall	49.0	62.0	35.3	33.2	38.8	43.9	43.2
	Castle street..	26.5	27.0	20.2	17.7	18.9	18.1	31.1

Improvements by removing houses and opening up streets reduced the mortality from 29 per 1000 in Castle street in 1853, a healthy year, to 20 per 1000 in 1863, a sickly year. (Trench for 1863, p. 15). This has continued since.

Average age at death :

Wards in Liverpool.	Scotland	16	years.
	Vauxhall	18	"
	Castle street.....	32	"

Mortality according to density of population :

Mortality	14.15.16	Population 86	to square mile.
	17.18.19	" 172	"
	20.21.22	" 255	"
	23.24.25	" 1128	"
	26 and upwards	" 3399	"

(Registrar General's Annual Report.)

to ascertain the conditions which precede or attend the mortality, and this opens up all the causes which diminish the vital powers of man. Among these may be ranged; mental depression, social habits, local influences, meteorology in all its phases, food and drink, overcrowding, bad sewerage, and whatever in fact tends to undermine the functions of life, and subjects the animal to premature death.

I have drawn up a table (2) which shews at a glance some of the many points which Hygiene has to consider, and will make a few remarks upon the several subjects, commencing with those lowest on the list; and as I proceed will but allude to the connecting links which bind them together.

Diseases which are communicable have long occupied the attention of Governments, as well as of the profession. They are palpable, and force their consideration upon all. Terrified by the destructive power of some,

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2 Registration of Deaths and Causes.

Hygiene.

Sentiments: Ethical. Theological. Humanitarian.

Intellectual: Regulating and Adapting.
- Laws. — Aggressive. Preventive.
- Customs.
- Habits.
- Government.

Animal and functional:
- Locality. — Noxious or otherwise. — Temporary. Permanent. General condition.
- Food and drink. — Quantity. Quality.
- Meteorology. — General and Local. — Air. Hygrometrical. Barometrical. Thermometrical.
- Diseases. — Induced. — Inherited. Personal.
- Diseases. — Epidemic. — Epidemic.
- Diseases. — Zymotic. — Character. Intensity. Propagating power. Preventive.

Governments have been compelled to take measures to avert evils, which sweep our kingdoms and are not stopped in their course by the widest oceans. A wild terror has too often suggested means of prevention, and Quarantine, right in itself, has frequently violated all common sense. To say that a disease is communicable suggests at once the idea that it can be limited, and to accomplish this, regulations, communal and imperial, are made. These regulations require to be based upon a great deal of accurate observation and a great deal of philosophical thought. For, however much may have been done there exists still a great ignorance of the conditions of several of these diseases, and until a more exact knowledge is attained errors in Quarantine must arise. Medical men even differ upon the essential characters of several of them, some medical men maintaining those to be epidemic, which others as firmly maintain to be communicable, whilst both may be ignorant of the region to which the propagation may be limited. The characteristics of *one*, however, are too palpable, and small-pox, one of the most virulent, has to be met by the most stringent isolation. The office of Hygiene will be to ascertain the exact nature of these scourges: the virus which propagates itself in the animal economy; their epidemic character, whether it depends upon the increased *subjective* poison, or upon the *objective* conditions, or upon both; their prevalence, whether general or local. When these conditions are known, then, we may look for wise legislation in the direction of a thoroughly sound Quarantine.

Of epidemics pure, and their causes, but little is known.

Diseases personally induced form a large class and arise from causes which being generally known can be avoided. The tendency to perpetuate the same action will cause some which are the result of personal contact to be ranged under the next class which comes under

our observation—that of inherited diseases. They are numerous and deeply interesting, and they are the result of a train of external circumstances which acting during a longer or shorter period impress a character upon the animal economy.

The death rate of these several diseases may be tolerably uniform, but they are subject to influences which may greatly increase or modify their intensity and mortality, and it is to these influencing data that our further attention must be directed. Taking inherited diseases for our illustration, they are the result of tendencies already brought into existence by exposure to external causes aided by the habits of life of previous generations. A concentration of these causes will develop a further increase of the same diseased action until the death rate shall be greatly in excess of the average, so that when depressing agencies lower the vital resistance the disease will assume the character of an epidemic. Scrofula is undoubtedly an inheritance, and yet may not scientific Hygiene determine the conditions which are favorable to its production, and may not the tendencies to such diseased action be steadily beaten back by a removal of the disturbing elements which called it into being and activity? The disease cannot be original, for who of living men would be exempt, and if induced why may it not be eradicated? (3)

Death may and often does become more frequent owing to disturbing causes which act injuriously upon the vitality

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(3) TUBERCULOSIS.

The chief effort of sanitary science in combating the prevalence of Zymotics, is to destroy and arrest their infection and contagion; but the scope of its endeavors must be greater when the Tubercular Diathesis among the people is to be counteracted. Then the chief desiderata are warmth, clothing and food which are within the province of individual or of family arrangements; and fresh air, exercise, and relaxation from daily toil which must for their indulgence receive the help of municipal or of national policy. (Trench, 1869, p. 35.)

of communities, and Hygiene can only become acquainted with these noxious elements by an extensive observation of the physical conditions which so operate, and among these meteorology holds a prominent place. Climate, which embraces variations in the relative degree of moisture and temperature, differences in the barometrical and electric state of the atmosphere, exercises a modifying power over the system. The physique of man in different countries shews this, and sometimes we may expect a deterioration of a race by a change of climate until an adaptation to the new conditions is developed. It is questionable whether the constitutional characteristics of the people of this continent will not require a long time before they settle down upon a permanent basis.

Some causes are so palpable that their results are recognised at once, and yet simple as they appear are so mixed up with other disturbing elements from a common source that they require careful elimination before their true value can be realized.

Cold affects the mortality of the aged and we might naturally expect this, for when age advances, the power of generating animal heat becomes less. On the other hand the greatest death rate among the young is during periods of highest temperature. (4)

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(4) Cold and Heat Affect Mortality.

Average of 10 years, Liverpool.

Quarters ending	March.	Sept.	
5 years and under	1898	2139	241 more.
60 years and upwards	564	361	203 less.

Under 5 years the mortality was :

Wards,—Scotland	60	per cent.
Vauxhall	60	of whole deaths.
Castle street	42	

Diarrhœa Tables extending over several years illustrated.
(Trench, 1866, p. 11.)

The air we breathe may be charged with death. (5) The effects of continued moisture or of an electric state of the atmosphere can only be determined by observations over large areas, liable however to errors, as the conditions may give rise to many and subtle influences.

The food we eat (6) and the liquid we use (7) constitute important items among the causes which tend to affect the stamina and vital powers of man. The quantity and quality of the first (Trench for 1863, p. 6) at various periods and under varying circumstances. The conditions under which water, coffee, tea and other liquids are most beneficial require observation. Theory cannot solve the question unless theory is based on facts.

Locality must be well considered to elicit the results which may be common from similarity in geological, meteorological or topographical conditions, or in more limited areas which may arise from disturbing elements such as animal or vegetable emanations.

The phenomena which are grouped rightly or otherwise under the head of "Intellect" largely affect the organism of man, and it is a question whether we do not have

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(5) Dublin Lying-in Hospital.

74 years ago, of 17,600 children born in the institution, 2,944 died within the first fortnight,—17 per cent. Dr. Clarke considered a foul and vitiated state of the air of the wards a principal cause. Arrangements were adopted by which a free circulation of air was secured through the wards; of 8,033 children born subsequently, only 419 died, or 5½ per 100. Under additional improvements a further decrease of the death rate—of 16,564 born, only 286 died —about 1.7 per 100.

Trench, 1863, page 15. Castle street :

In 1853 and 1863,

From 29 to 20 per 1000,

—Or see note 4 page 115.

(6) Want of food at the commencement of the American war, and the increase of fever were contemporaneous.

(7) Pure Water.

"The effect of water is well illustrated by the experience of the Mill Bank Prison. In 1854 the water from artesian wells was introduced, and the result has been the virtual extinction of typhoid and other diseases of same class which frequently prevailed in the institution."

to deal with elements more destructive to human life than from all the causes we have previously noticed, inasmuch as all these are intensified by the social condition of the race. Governments which vary in their tendency to elicit human thought and the developement of self-government and individualism will vary in their power of grappling with social evils. Despotism which dwarfs and represses thought can only be surpassed in evil results by the licentiousness which characterises the other extreme, when every man does that which is right in his own eyes.

Customs which prevail in communities produce in individuals those habits which are injurious or beneficial, and both are apt to escape strict investigation as they commence with our existence and are strengthened with our growth. We look upon the fashion or custom of the Chinese woman who represses the growth of her feet and the still more injurious fashion of the European or American who contracts her breathing space as violations of natural laws, and yet there are evils connected with our every-day life more injurious from their numbers, which if the attempt be made to overturn them, the great mass of society will resent as unnecessary interference.

Custom prevails in our buildings, in our ventilation or rather want of ventilation, (8) in our eating, our clothing

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(8) CUSTOM,—INTEMPERANCE,—CHOLERA.

A death from cholera:—"When I went again to hasten the funeral I found the whole place reeking, and with the loathsome and disgusting emanations of drunken unwashed bacchanals. The three houses were crammed with men, women and children, while drunken women squatted thickly on the flags of the court before the open door of the crowded room where the corpse was laid. There had been in the presence of death one of those shameful carousals which still linger as dregs of ancient manners among the funeral customs of the Irish peasantry. Suffice it to say that before a week had passed, Boyle, the husband of the woman was also among the dead, and before the end of July 48 persons had died from cholera within a radius of 150 yards from the court which had been the scene of the ill-timed revelry."

(T. for 1867, p. 23.)

and drinking, and from childhood those social habits are so familiar that they pass unquestioned and yet every fact of our every-day life might be based upon a scientific foundation. It is only of late that attention has been directed to them.

There is one custom of society which as yet has had but a slight investigation, however fearful the results which a partial lifting of the veil has disclosed.

The drinking *custom* (9) is yet too strongly rooted to permit a candid and honest consideration. The mortality directly arising from the effects of alcoholic drinks forms quite a percentage of the annual death-rate ; but who can tell the number it adds to the general percentage by diminishing the powers of resistance to disease which might not otherwise be fatal ?

Overcrowding whether of dwellings or of localities increases the death-rate and it is only by the most perfect Hygienic arrangements that injurious results can be prevented when the population in any given area becomes numerous. (10)

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(9) T. for 1865.—Intemperance among the poor is at once a cause and result of destitution. It first inflicts upon the family the sufferings of abject poverty and want. Then a greater evil. For by debility of starvation and nervous exhaustion of misery is engendered an insatiable craving and thirst for the stimulus of ardent spirits.

LIQUOR TRADE AND CONSUMPTION.

" The people of Great Britain are spending in drink $500,000,000 a year. A trade has grown up with a capital of $600,000,000. A trade more powerful far than the cotton industry with its capital of $400,000,000, and which after all, in its legitimate exercise provides but a luxury, and in its illegitimate, the most insidious of all social temptations."

(10) INTEMPERANCE AND OVERCROWDING.

"The result of the enquiry is the conviction supported by a mass of evidence, that the proximate causes of the increased death rate are Intemperance, Indigence and Overcrowding. These two latter being generally found in the train of intemperance, although all three act and react on each other as cause

It is through the agency of the intellect that we must look for a regulative of the conditions which will result in the greatest possible physical good; and these regulations can only be wisely made when observation has laid the foundation by recording all the possible facts connected with disease and death, and just in proportion as this is done will legislatures be enable to enact their laws upon a scientific basis.

In the system of prevention, Quarantine occupies a prominent place and to be efficient requires an accurate knowledge of diseases, their methods of propagation, and the best means of keeping them from spreading.

The aggression laws over-ride individual and communal rights, (11) when the exercise of those rights might be injurious to the people generally. Compulsory sewerage, restriction as to buildings and the number of occupants (note 3, page 114,) width of streets and the measures which require the exercise of a restraining legislation.

In Great Britain sanitary regulations though numerous before 1848 were in that year included in a general Act,

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and effect. Your committee need not here set forth in detail all the evils consequent on intemperance. The evidence abundantly shews that the vice is alarmingly prevalent among the laboring population, and that its wretched victims and their families sink rapidly into squalid poverty resulting in overcrowding and its attendant evils."

Trench, 1863, P. 15.—St. George's district including Castle St. accounted for 29.1 per 1000 in 1853, a healthy year, and gave 20.6 per 1000 in 1863 a sickly year. Cause—removing houses and opening up streets.

14, 15, 16 death per 1000, population being 86 per square mile)
26 and upward deaths 1000 do do 3399 do
(Trench report for 1871, p. 7.

Percentage of deaths under 5 years to whole deaths in each ward.

Wards,—Scotland 62.9
Vauxhall 56.1
Castle Street 41.3

And this ratio has continued year after year.

(11) The necessity of this is seen by note 1, page 111.

and a system inaugurated by which every part of England could avail itself of law to carry out necessary reforms.

A few remarks upon the sentiments will close my notice of the subjects contained in the table. They must necessarily occupy a place among the influences which operate upon the whole man. They form the substratum of our duties, and when exercised in their due relationship are conducive to a healthy state of mind and body; whilst, on the contrary, they may injuriously affect not the individual only but the masses. Hopeful expectation has been the cause of the success of many a quack, and it is a good working ingredient in producing a reputation for the regular practitioner; on the other hand the absence of hope demoralizes the man, prostrates his energies, renders him the easy victim of disease, and drives him to vicious indulgence; and when pestilence has commenced its ravages, how many rushing for refuge to stimulants have become the food of the plague.

The magnitude of this question has compelled me to curtail my observations to the smallest compass upon the numerous subjects, any one of which would require more than one thesis to elucidate.

My object has been to give a bird's-eye view of what the study of Hygiene really includes.

When we look back we find that general education embraced almost every thing except those relationships which man holds to the physical world, with which he is every moment coming into contact.

He was taught to lift his eyes to the very stars, to scan their movements and to measure their distance, and yet was left in ignorance of the effects of his cramped-up rooms and of the mephitic air which entered every moment one of the citadels of life. Knowledge of every department of nature has been accumulating until creation has been spoiled of its teeming facts and it is now only that the necessity is felt, that man who is the creature of

the influences around him should devote his study to the circumstances which mould his destiny.

To secure a Hygienic education we must look to three sources :—Governments, Universities, and Individuals. From individuals as such or associated, and chiefly from men in our profession will come the condition of localities, the elements of disturbance, and all the facts which require a quickened intelligence to eliminate as bearing upon the question. Whilst Governments *only* can obtain returns of vital statistics from a whole country by compelling a registration of deaths and the causes of death, (12) they also can secure meteorological observations from all quarters, and by a central department have all the data collected and tabulated. But chiefly upon the centres of education (13) will devolve the duty of imparting to their alumni the knowledge obtained from all sources, and if in every medical school there was a Professor of Hygiene, who does not see that with leisure and ability to investigate the numerous facts now being collected such Professors would be able to generalize and elicit the relationships which exist among all the phenomena of life, and to place intelligibly in a few months before their students more than could be attained in a lifetime of individual exertion amid the cares of a professional career. And not only so, but in *every* University there should be established similar chairs so that the relationship between man and his physical surroundings should form a part of the education of those, who in the nature of things must be the future legislators of the land who, thus in-

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(12) We have no registration of deaths in New Brunswick though before Confederation several attempts were made to secure law.

(13) In Dublin there is a chair which treats upon Law, Engineering, Pathology, Vital Sanitary Statistics, Chemistry, Meteorology, and Medical Jurisprudence. King's College, London, established a chair of Public Health, called Professor of State Medicine. Upper Canada has also a chair, and Bishop's College, Montreal.

structed, would be ready to legislate wisely, and intelligently, instead of groping their way in ignorance.

And who can tell the grand results, when the material condition of the race shall be advanced by enlightened sanitary knowledge and regulations. When the causes of disease are attacked in their strongholds, when rational amusement shall supersede the discordant sounds of the revel ; when the wants of the system shall be satisfied with proper foods ; when the physical state of man shall be elevated, and reacting upon his intellectual and moral powers shall lift the race to the highest possible attainments.

Case of gun-shot wound of head.—Death.—Reported by T. G. RODDICK, M. D., House Surgeon, Montreal General Hospital.

J. M., æt. 18, a strong athletic youth, while carelessly handling a pistol on the evening of the 7th July, 1873, shot himself through the head, the bullet entering the right temple. The accident occurred about four miles from the city of Montreal. Dr. Scott and myself, who had been sent for, were in attendance on the case a little over an hour after the accident ; but in that time a large quantity of blood had been lost from a wound of one of the smaller branches of the temporal artery. He had not been coherent from the instant the shot was fired, but fell immediately from the swing, on which he was seated, to the ground. We found him lying on his back on a mattress arranged on the floor, with his head resting perfectly motionless on the pillow, while his legs were constantly drawn up and again extended in a deliberate but restless manner. There were no convulsions and no sign of paralysis in any part. The countenance was blanched to the last degree ; pupils equal and normally

dilated ; no squinting or other sign of basic irritation ; pulse 140, extremely shabby and irregular.

As to the injury itself, there was a scalp wound resembling a simple clean incision, an inch in length and gaping, situated about an inch and a half above and an inch behind the line of the external angular process of the frontal bone. The central portion of this incision was occupied by a circular opening in the bone leading into the brain. The probe could be passed through this opening for a distance of two inches, in a direct line across the brain without interruption from any cause. There seemed to be a perfectly open canal through the substance of the brain in this direction. The experiment was not tried as to how far the probe could really pass without meeting resistance. From the condition of things discovered after death, there is not the least doubt, however, that it might have been carried on to the bone beyond without difficulty, and little if any danger. There was no opening of exit. The weapon was the very diminutive single-barrelled breach loading pistol generally worn in the waist-coat pocket, carrying a conical bullet. If spoken to sharply he was aroused for a moment from the semi-conscious condition in which he lay, would mutter a reply more or less coherent and again lapse into his former state. Nothing definite could be elicited from him respecting the accident.

The treatment employed was simply the application of ice-water to the head with an occasional tea-spoonful of very weak brandy and water. Strict quiet was enjoined, and he was to be constantly guarded, as he at times threatened by his movements to do violence to the wound on account, no doubt, of some irritation in that part. He has passed water in bed since the accident.

Early the following morning, the pulse had fallen to 110 and was of better volume. Otherwise his condition remained unaltered. Brain matter protruded from the wound.

During the forenoon, however, he improved rapidly and could be aroused sufficiently to describe the accident, though imperfectly. Late in the afternoon, a violent reaction set in as indicated by general capillary congestion and increase in temperature. From being blanched the countenance became scarlet, the conjunctive suffused, and the head extremely hot. The thermometer indicated a temperature of over 105. This condition lasted for about four hours.

July 9th.—He was extremely restless during the night, kicking off the bed-clothes and moving his arms about in a spasmodic manner ; pulse 104 and of good volume ; when roused he converses freely and expresses himself as free from all pain in the head ; while sleeping his body occasionally starts but the head never stirs from its place on the pillow ; he has been noticed also in his sleep to pick at the bed-clothes ; but this symptom is not constant and only momentary ; tongue slightly dry. He took in the shape of nourishment a pint of milk during the night and has taken a cup of beef-tea this forenoon. The wound is constantly filled with softened brain matter. The iced applications are still to be continued. Was ordered a dose of castor oil which speedily operated.

He remained precisely in the condition above noticed for the four days succeeding, excepting that his pulse gradually fell each day until on the 12th July it was 84, full and regular. He took in this time large quantities of milk daily, and would ask for the urinal when required.

July 13th.—When seen this morning by Dr. Scott and myself we found a marvellous change for the better ; pulse 78, full, but slightly intermitting ; countenance placid ; temperature normal ; he converses cheerfully and without effort to those about him. He feels no pain or uneasiness and talks of getting up if permitted. Brain matter is still coming away on the cloths applied to the wound, which latter looks comparatively healthy. The

same precautions in regard to perfect rest are still enjoined.

The day following (14th), the improvement in his general condition continued and induced us to the belief that a temporary recovery might yet result. We, therefore, on mature deliberation gave a somewhat favorable prognosis to the friends, being under the impression that the foreign body might have nestled itself in some nook of the skull or had traversed a section of brain substance, injury to which might not prove immediately fatal.

At our visit on the 15th, however, we found reason to alter our prognosis. We learnt from the friends that on the afternoon previous or very soon after we left him, the patient became suddenly restless and feverish, complained of great headache and refused the food and drinks he had before so largely partaken of. These symptoms increased during the night and when we arrived he was in a semi-conscious condition, with rapid pulse, flushed face, and hurried breathing, in fact, in almost precisely the same state as described on the second day. He was aroused with very great difficulty and then answered only in monosyllables and often unintelligibly. The wound looked less healthy, the surrounding skin having a congested appearance. His bowels had moved freely during the night, and he passed water regularly.

17th July, 11 A.M.—Yesterday we found the patient in somewhat the same condition as on the day previous, but this morning he is evidently dying. Within the past twelve hours he has become rapidly worse, and now lies in a comatose condition. The entire surface of the body is purple from venous congestion; there is a convulsive movement of the right side, the eyes remain widely open, and there is external strabismus. The bronchial tubes are gorged with secretion.

He gradually sank and died about eight o'clock the same evening.

Autopsy.—On the order of the coroner's jury a post mortem examination was held about twenty hours after death.

Head.—The scalp being dissected off we found in the skull an almost perfectly circular opening opposite the position of the external wound. The probe was passed through this opening and made to follow the *trajet* of the bullet in a direction horizontally across the skull to nearly the same position on the opposite side. A large mass of brain matter protruded through the opening in the bone. On removing the calvarium the dura mater was noticed to be intensely injected. It presented a large rent in comparison with the size of the external openings, which may have been due probably either to sloughing or retraction of the membrane. A section of the right hemisphere was made on a line with the course of the bullet, and from the *tunnel* a number of speculæ of bone were removed. The brain substance around was very much softened, and immediately within the dura mater had some of the characters of cerebral abscess, but without the presence of any lining membrane. From this part of course the brain which constantly protruded was supplied. As to the course of the bullet, it traversed the posterior part of the floor of the anterior cornu of the right lateral ventricle, ploughed up a small portion of the corpus striatum passed beneath the septum lucidum, (as a more extended dissection showed), crossed the floor of the left lateral ventricle, wounded a like portion of that striated body, and was found lodged in a space of considerable size about two lines from the periphery of the hemisphere, being evidently spent before it could reach the bone, which it would have struck at a point almost precisely opposite its opening of entrance. The bullet was quite flattened or rather presented a watch glass appearance having slightly concavo-convex surfaces. The other organs were not examined.

It is subject for thought how such perfect mental power, as was presented during several successive days after the accident, could co-exist with so fearful a lesion.

Proceedings of Societies.

CANADIAN MEDICAL ASSOCIATION,

Sixth Annual Meeting, held at St. John, N. B., 6th and 7th August, 1873.

The Association met at 10 o'clock, A. M., at the Odd Fellows' Hall. The President J. A. Grant, M. D., M. P. of Ottawa, occupied the chair. In the absence of Dr. Peltier of Montreal, the Secretary of the Association, A. H. David, M. D., was requested to perform that duty. A large number of Medical Gentlemen, principally from St. John, N. B., and the Maritime Provinces, where proposed and elected to membership. After the meeting was fully organized the following gentlemen were in attendance :

Jos. Coté, St. Vallier ; J. A. Grant, Ottawa ; Chs. C. Hamilton, Cornwallis, N. S. ; D. McN. Parker, Halifax, N. S. ; J. F. Black, Halifax ; W. S. Harding, St. John ; S. Z. Earle, St. John ; W. W. Wickwire, Halifax ; Jas. T. Steeves, St. John ; S. T. Gove, St. Andrews ; T. J. O. Earle, St. John ; L. B. Botsford, St. John ; W. H. Hingston, Montreal ; A. H. David, Montreal ; L. G. Turgeon, Montreal ; Robt. Thomson, St. Stephen ; Paul R. Moor, Hopewell ; Robt. Black, Wickham, Q. C. ; W. Bayard, St. John ; L. McLaren, St. John ; Geo. E. S. Keator, St. John ; F. W. Macpherson, Oromocto ; J. H. Wilson, Springfield, K. C. ; R. J. Lemont, Hampton ; F. G. Jordan, St. John ; John Waddell, St. John ; E. S. Blan-

chard, St. John ; E. A. Vail, Sussex Vale ; P. Robertson Inches, St. John ; Dr. Smith, Portland ; J. M. C. Fiske, St. John ; J. U. Burnett, Sussex ; James Christie, St. John ; John Berryman, St. John ; Boyle Travers, St. John ; J. A. Gregory, Fredericton ; G. J. Harding, St. John ; Edwin Bayard, St. John ; James D. Simpson, Fredericton Junction ; A. B. Atherton, Fredericton ; Benj. Coburn, Bright, N. B. ; Thomas Walker, St. John ; J. W. Daniel, St. John ; J. W. Sheffield, St. John ; L. G. Deveber, St. John ; H. E. Boirsy, Memramcook ; Wm. J. G. Dawson, Newcastle, Miramichi ; Edwin Farrel, Halifax ; E. Robillard, Montreal ; M. C. Macdonald, Narrows, Q. C., N. B.

The President then delivered his address, this will be found in our original department. In the course of the afternoon, Dr. W. H. Hingston of Montreal, read his address on Surgery, taking for his subject the History of Surgery in America from the earliest periods down to the present time. This address was critically reviewed by several gentlemen present, and occupied the balance of the day and evening.

Thursday, August 7th.—The Association assembled this morning at 9 o'clock, the President, Dr. Grant, in the chair, and Dr. David acting as Secretary. The report of the nominating committee was read by the chairman, Dr. Hamilton, and was adopted without dissent, it is as follows :

For President—Dr. Marsden, Quebec.

For Vice-President for Ontario—Dr. H. H. Wright, Toronto.

For Vice-President for Quebec—Dr. Hingston, Montreal.

For Vice-President for Nova Scotia—Dr. Jennings, Halifax.

For Vice-President for New Brunswick—Dr. S. Z Earle, St. John.

For Gen. Secretary of Association—Dr. David, Montreal.

For Gen. Treasurer of Association—Dr. Robillard, Montreal.

For Secretary (correspond.) for Ontario—Dr. Fulton.

For Sec. (correspond.) for Quebec—Dr. A. J. Belleau.

For Sec. (correspond.) for Nova Scotia—Dr. J. F. Black.

For Secretary (correspond.) for New Brunswick—Dr, G. E. S. Keator.

The following committees were appointed on subjects named :—

Prize Essay Committee : Drs. David, Howard, Fenwick, Rottot and Pelletier.

Medical Education : Drs. Grant, Howard, Wm. Bayard and Parker.

Medical Literature : Drs. Black, Fenwick, Dagenais, Farne, Bethune, McIntosh, Fulton, Oldwright, Wickwire, Russell and Hamilton.

Necrology : Drs. Campbell, Canniff, Harding and DeWolf.

Publication : Drs. David, Robillard, Campbell, Trenholm, Dagenais, Hingston, and Pelletier.

Auditing Committee : Drs. Fenwick, Pelletier and Turgeon.

The President, Dr. Grant, remarked that he regretted much that no essay had been sent in for competition for the gold medal offered by himself and Dr. Worthington of Sherbrooke. He would continue the offer for another year with an earnest hope that several essays would be forthcoming at the next annual gathering, subject Zymotic diseases and their prevalence in Canada.

The following gentlemen are requested to prepare papers on the following subjects for the next meeting of the Association : R. P. Howard of Montreal, on Medicine ; E. Farrell of Halifax, and Fenwick of Montreal, on Surgery ; E. H. Trenholm of Montreal, on Midwifery ; A. P. Reed of Halifax, and Brosseau of Montreal, on

Hygiene ; Desjardins of Montreal, and Rosebragh of Toronto, on Ophthalmology ; Berryman of Toronto, and G. A. Hamilton of St. John, on New Remedies ; W. H. Hingston of Montreal, on Mercury.

Dr. L. B. Botsford, St. John, N. B., read a paper on Hygiene and an interesting discussion ensued, the subject of the want of a proper system of registration of births, marriages and deaths was fully entered upon by Dr. Keator of St. John, Dr. Botsford and others. On motion of Dr. Botsford seconded by Dr. Travers, a committee was appointed to consist of Drs. Grant, Tupper, Hamilton, Rottot and the President, to bring the subject of vital statistics prominently before the Dominion Legislature with a view of definite action thereon.

A discussion then took place upon the report of the committee appointed to prepare amendments to the constitution and by-laws, which were allowed to remain as they were.

Dr. Wm. Bayard brought before the Association a little girl who had been afflicted with a very peculiar, interesting and rare injury, namely, the fracture and ultimate elimination of the odontoid process of the axis or second vertebræ. The Dr. made some interesting remarks upon the treatment of the case and upon the case itself, which was examined with much interest by the members present. The treatment of this formidable case was quite successful, and the little girl was in good health. This is one of only three cases of the injury known to have occurred.

On motion it was decided to hold the next meeting of the Association at Niagara, on the first Wednesday in August, 1874.

Votes of thanks were passed to the retiring officers, to the members of the profession in New Brunswick for their kindness and courtesy, to the Odd Fellows for the use of their hall, and to the railway and steamboat managers for reduction of fares. The convention then adjourned.

Reviews and Notices of Books.

Insanity in its relations to Crime; a text and a commentary. By WILLIAM A. HAMMOND, M.D., Professor of Diseases of the mind and nervous system, &c. 8vo. pp. 77. New York: D. Appleton & Co., 549, 551, Broadway, 1873.

We learn from the preface that a part of this essay first appeared in *Putnam's Magazine* for September, 1870. The greater portion is, however, now for the first time published. The author commences by giving the history of three cases of insanity in illustration of the medico-legal relations of that mental state to the commission of crime.

These are taken from the jurisprudence of foreign countries, intentionally so, "in order that entire absence of disturbing factors might be secured." The first case given is that of Leger, taken from the '*Causes Célébres*,' which occurred in 1824. The man carried off a little girl, of about twelve years, ravished her and afterwards cut her body up and ate a portion of her heart and drank her blood. This wretched being although evidently insane was convicted of murder and speedily executed. The opinion that Leger was insane, was advanced by Mr. Gorget, and after the execution an autopsy of his body was made by Esquirol and Gall, and evidence of the existence of brain disease was discovered. It is hardly fair to advance this case in support of the views put forth by our author because it occurred at a time when the death penalty was frequently inflicted for much lighter offences than that of murder. *Tempora mutantur et nos mutamur in illis.* Had Leger lived in our day he would have found those ready to deliver him from the hand of the executioner, as in verity it seems to us to have been a judicial murder.

The next case is that of "Jobard" who was apparently religiously insane. He conceived that he had committed crimes against High Heaven and that while he lived he could not resist the commission of sin. The unfortunate wretch thought of suicide, but reasoned that he would be unable to repent the crime of self-destruction and that he would as a necessity be damned to all eternity. He next decided to forfeit his life to the State as he would thus get rid of his encumbrance and also time for repentance before his execution. This intention he carried out by stabbing to the heart a young woman, a perfect stranger to him, during the performance of a piece at the theatre of the Celestines in Lyons. There could be no question of the man's insanity, the jury returned a verdict of guilty as to the homicide with premeditation, but with extenuating circumstances, and he was condemned to imprisonment for life at hard labour. This occurred in 1851.

The third case selected is that of Jules ——, a young man of nineteen years who murdered his step-mother, whom he had regarded with increasing aversion for several years. At the trial, Calmeil, Tardieu and Devergie testified in favor of the insanity of the prisoner and he was acquitted and set at liberty. It appeared that several members of his family both on his father and mother's side had been insane. This unfortunate young man removed to Brussels where he lived in great retirement, and five years after the act above narrated, he returned to Bordeaux, sought out the tomb of his victim, wrote some sentences in his memorandum-book and then blew out his brains.

In relating this case M. Devergie remarked that it was a matter of great surprise to him and others, that the young man had not been confined in a lunatic asylum for that all the experts had insisted on the necessity of removing the young man from society, as at any

moment he might commit another criminal act of insanity.

The author in the second part of his treatise gives us a commentary on the law of crime and seems to argue in favor of inflicting the death penalty in certain cases of murder perpetrated by the insane. In speaking of insane delusions connected with matters of religious belief he remarks: "They are not concerned with matters of fact and should never, therefore, be held to acquit of responsibility for crime." Under this head he mentions the case of Charles Anderson who deliberably took the life of James Marchin, one of the crew of the ship *Raby Castle*, on her homeward voyage from Penang. Marchin was a mulatto, but Anderson was under the dilusion that he was a Russian Finn. From a strange superstition that the presence on ship-board of a Russian Finn would lead to the loss of the ship and crew, Anderson determined to kill the Finn, which he ultimately accomplished. And the author remarks further on in reference to this case "Delusions such as his do not justify homicide, and, were a few like him severely punished there would be less superstition and fewer delusions. While death is the penalty for murder, such lunatics as Anderson should be made to suffer it." This we think a very dangerous doctrine to advance; and although without doubt an insane murderer should be secured from further chance of putting in practice his insane delusions, a more merciful method of punishment can be instituted than that of inflicting the death penalty.

Again the author states that "some of the insane are such monsters of depravity that they should be slain upon the same principle that we slay wild and ferocious beasts.

To sum up the author considers that the insane if convicted of crime should be punished either by sequestration, fine and imprisonment, with labour, and in some

instances even with death. To the former of these propositions we agree, but we cannot believe that in any community the safety of society demands the infliction of the death penalty for murder, when the proof of the existence of an insane impulse is beyond question. The plea of insanity in excuse for crime is exceedingly difficult to establish. In England the criminal is usually left for execution, but when insanity is established the prerogative of the Crown is exercised and the sentence commuted to imprisonment for life. Dr. Hammond has suggested the establishment of penitentiaries for the insane criminal; this would become a necessity if crimes of this nature were common, although it is on high authority probable, that nine-tenths of the crimes perpetrated, proceed from a diseased or disordered state of the mental faculties operating on an individual lacking a guiding principle of virtuous action.

Report of Columbia Hospital for Women and Lying-in Asylum, Washington, D. C. By J. HARRY THOMPSON, A.M., M.D., Surgeon-in-Chief; with an Appendix, 4to, pp. 430. Washington: Government Printing Office, 1873.

We lately received for review, the report of the Surgeon-in-chief, Dr. J. Harry Thompson, of the "Columbia Hospital for Women, and Lying-in Asylum," Washington, D.C. The report is a thick quarto volume of 430 pages, with numerous illustrations and consists of an account, by Dr. Thompson, of the various operations which have been performed in the Hospital from March 1866 to June 1872, with an appendix containing reports from each of the three departments of the Dispensary connected with the Hospital: "Diseases of Women," "Diseases of Children," and "Diseases of the Eye and Ear." The report is excellently printed at the Gov-

ernment Printing Office, Washington, and it reflects great credit upon the industry and care of Dr. Thompson, and the liberality of the United States Government.

Columbia Hospital obtained its charter in June, 1866, and in the same year, Congress appropriated $10,000 to its support, and the appropriation has gone on increasing yearly, with the demands of the Hospital. Founded at first, with a view to afford medical and surgical assistance to numbers of those women, who were attracted to the Capital during the war, in search of friends and relatives, and many of whom were prostrated by sickness and totally without means, it now holds forth its advantages to women from all parts of the Union. Since the opening of the Hospital in March, 1866, to June 1872, the total number of admissions has been 11,455, of whom the large proportion of 9,457 has been discharged "cured."

Dr. Thompson's report is a summary of the principal operations from March 1866 to June 1872, and is an interesting and valuable record. In the first section of his report he gives the details of 34 cases in which he operated for rupture of the perinæum. He performs the operation in much the same manner as that advocated by Mr. Baker Brown, but he does not divide the sphincter as recommended by that gentleman; he prefers instead, to paralyze the muscle, after the plan of Dr. Van Buren, by introducing the thumbs into the anus, seizing the nates on either side, and making gradual traction until each thumb touches the tuber ischii. He claims that permanent loss of power never results from this mode of treatment, as it does sometimes from division of the sphincter. Instead of bougies, he uses hard rubber tubes, the size of an ordinary catheter, and perforated at intervals of a quarter of an inch, and in lieu of waxed thread he uses silver wire. He also secures a daily passage from the bowels, washes out the vagina with a weak

solution of carbolic acid, and draws off the urine every six hours.

In the cure of this most distressing condition, Dr. Thompson has had entire success as his carefully reported cases show, and many were instances of rupture of several years standing, and variously complicated. The operations for vesico-vaginal, and recto-vaginal fistulæ, and those for the relief of vaginal recto cele and vaginal cystocele, seem to have succeeded well.

In the section devoted to diseases and displacements of the uterus, we have clinical notes, which will repay perusal, on many cases under Dr. Thompson's care. These include cases of Prolapsus uteri, uterine tumours of various kinds, subinvolution of the uterus, and carcinoma of the uterus, to which is added an account of eight cases of cancer of the breast. Preceding the details of the cases of cancer, Dr. Thompson gives a synopsis of the history of the disease from Hippocrates and Paulus Ægineta, to Virchow, Billroth and Rindfleisch.

The *résumé*, is, without doubt interesting and instructive, and although it seems to us somewhat out of place in an official report like the one before us, yet it leads up, naturally, to the author's conclusions on the nature of cancer, which we give in his own words.

" *First.*—That cancer is not constitutional in its origin, but the result of a slowly transpiring, interstitial inflammation, dependent upon local irritation.

" *Secondly.*—That there is no specific cancer-cell, the cells found in the connective tissue stroma being altered epithelial cells, or the white corpuscles of the blood, their different appearances in different forms of cancer, being dependent upon the stage of the disease, and the organ in which it is developed.

" *Thirdly.*—That the probability of secondary cancer occurring after the ablation of a primary tumour depends upon the richness of the part in lymphatics, and the stage of the disease."

In consequence of this view regarding the nature of cancer, Dr. Thompson advises amputation of the cervix, as a "curative and prophylactic measure" in chronic cervical metritis, when "all other means of resolving the inflammation and induration have failed."

He then proceeds to give the notes of eight cases of carcinoma uteri, treated locally with bromine as a caustic and injections of bromo-chloralum as an antiseptic, morphine or conium being given internally to allay pain. One of these cases was treated by amputation of the cervix, as the upper part of the cervix and the body of the uterus seemed healthy. The operation was performed in July, 1867, and in February, 1872, the patient was delivered of a child at full term, and there was no evidence of a return of the disease. With a short account of various other operations Dr. Thompson's report concludes.

The appendix contains reports from the Dispensary connected with the Hospital, and will well repay perusal.

In conclusion we must express the pleasure which we have felt in reading the report, and congratulate Dr. Thompson upon the able manner in which he has fulfilled his task, and upon the efficient aid which the Hospital offers to suffering women.

We commend this report to our readers, or rather to such of them as are able to obtain a copy of it, as it is a Government document, and one not intended for public circulation.

BOOKS RECEIVED FOR REVIEW.

The Medical and Surgical History of the War of the Rebellion, 1861-65. Prepared in accordance with Acts of Congress under the direction of Surgeon General Joseph K. Barnes, United States Army. Medical Vol., part first, imp. quarto, pp. 1077. Surgical Vol., part first, imp. 4to, pp. 664. Washington, Government Printing Office, 1870.

The Cerebral Convolutions of man represented according to original observations, especially upon their development in the fœtus. Intended for the use of Physicians, by Alexander Ecker, Professor of Anatomy and comparative Anatomy in the University of Freiburg Baden. Translated by Robert T. Edes, M.D., 8-vo. pp. 87. New York, D. Appleton & Co., 549 and 551 Broadway, 1873.

Experimental Researches on the causes and nature of Catarrhus Æstivus, Hay-Fever or Hay-Asthma. By Charles H. Blackley, M.R.C.S.Eng., 8-vo. pp. 202, London, Bailliere, Tindall & Cox, King William Street Strand, 1873.

Clinical Electro-Therapeutics, Medical and Surgical. A Hand-Book for Physicians in the treatment of nervous and other diseases. By Allan McLane Hamilton, M.D., Physician in charge of the New York State Hospital, for diseases of the nervous system, &c., &c. With numerous illustrations, 8-vo. pp. 184. New York, D. Appleton & Co., 549 and 551, Broadway, 1873.

Contributions to Practical Surgery. By George W. Norris, M.D., late Surgeon to the Pennsylvania Hospital, Vice-President of the College of Physicians of Philadelphia, &c., 8vo. pp. 318, Philadelphia, Linday & Blackiston, 1873.

Chemistry: General, Medical, and Pharmaceutical including the Chemistry of the U.S. Pharmacopœia. A Manual on the General Principles of the Science and their applicatian to Medicine and Pharmacy. By Jonn Attfield, Ph. D., F.C.S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, &c., &c. Fifth Edition, revised from the last English edition, by the author, 8-vo. pp. 606, Philadelphia, Henry C. Lea, 1873.

CANADA

Medical and Surgical Journal.

MONTREAL, SEPTEMBER, 1873.

THE CANADA MEDICAL AND SURGICAL JOURNAL.

It will be observed that we have associated with us three gentlemen who have in the past, given very material aid in the work of editing this journal. By this arrangement we trust to issue the journal with greater punctuality, and make it more worthy of the support of the profession.

In starting this enterprise we were fully alive to the fact that we were incurring grave responsibility. Medical journalism has never been a remunerative undertaking in Canada. Several periodicals have been published from time to time and all have been relinquished by their promoters for lack of support. The profession appears to regard with singular apathy an undertaking of this kind. Some believe that untold wealth pours into the coffers of the proprietors ; others look upon it as a means used by the few to indulge in a species of self-gratulation.

We may observe that the success and advancement of the science of Medicine and Surgery can alone be promoted by a free interchange of ideas. This will be found to be best secured by the publication of those ideas. We can all see the advantage to the profession in Great Britain, by the free publication of ideas, suggestions and methods of practice in the weekly and other medical papers. These periodicals are read with avidity by the

profession, because the character of the papers published is such, that few men can afford to pass through life without an acquaintance with the prevailing opinions of the times. Are we then in Canada without opinions? Has no man amongst us, matured his opinions and beliefs on the truths of observation? And if such be the case, is it not a duty to give for the benefit of all, such results of observation. Space will not permit us to say much more on this subject; suffice it to remark that we expect to deserve the support of our professional brethren by independence of opinion on medico-political matters; and on scientific points we will allow the profession to take care of itself, feeling at the same time certain that in this country, in time, it will wake up from its present state of lethargy and assume its proper position in the ranks of the educated.

POISON-LABELS.

We took the opportunity on a recent occasion to express our surprise at the absence of all notice upon the part of the coroner and his jury of the fact of the discovery of several large vials of the most deadly poisons upon the person of a man who was found dying in one of our streets. That this exhibits gross neglect on the part of that legal functionary none can deny; on that aspect of the case, however, we have already said our say. But here is another point equally deserving of attention and to which we but barely alluded in our previous article. Why were these large quantities of the most virulent poisons known allowed to be dispensed without so much as having the word *poison* written upon the label? Fancy two ounces of Flemings' concentrated Tincture of aconite being handed out to an ignorant man, one notoriously intemperate and addicted to quacking his neighbors, without any mark whatsoever on the bottle to warn

against the deadly nature of its contents! Is this right? We think not; still there is no law in the country to prevent its being done, and we know that no druggist could be in any way punished for neglecting to observe this salutary precaution. Although there is an old act still in force forbidding the sale of poisons without an authenticated order of a physician, or priest, yet there is no law or regulation whatsoever on the subject of compulsory attention to the proper labelling of bottles and parcels containing poisonous drugs. How many cases of so-called accidental poisoning have been known to have taken place solely through neglect of this precaution? And how many more have doubtless occurred about which nothing was ever heard? A short time ago a patient of own was by the merest accident prevented from taking a spoonful of aconite liniment instead of his iodide of potassium mixture, solely owing to the absence of any distinguishing mark upon the vial containing the former.

It is high time that the attention of the profession in Canada should be directed to this matter. In England the most stringent regulations are on the statute books concerning the sale and mode of dispensing poisonous drugs, to the great importance of which the British public are so fully alive. This is evinced by the unhesitating manner in which verdicts and presentments of coroner's and other juries are made when it is ascertained that due diligence and caution have not been used. But, some how, we in Canada seem never to have appreciated the magnitude of the possible results which might emanate from such remissness; and furthermore we are satisfied that there are many amongst the fraternity of druggists, even of those in best standing in our own city, who seem to be utterly unconscious of the grave responsibility resting upon them while dispensing poisons. They ought to know and feel that while thus engaged they are

morally bound to use every care to prevent, to the utmost of their power, the possibility of mistake occurring in their use; but on the contrary some we have found —exceptions we hope and believe they are—possessed of a degree of obtuseness and culpable nonchalance positively surprising. In illustration of this latter statement we may quote a circumstance recently related to us by a medical friend. He had occasion to prescribe a strong solution of atropia for a case of ophthalmia. Now, although he had taken the precaution of writing the word "poison" in his prescription with the directions, the bottle was sent without any mark but the common label. Thinking it an oversight on the part of the druggist it was sent back with the request that a poison label might be affixed. To our friend's surprise the messenger on returning stated that the druggist was much annoyed—pooh poohed the idea—and said that "no person was such a fool as to take eyedrops." Now, when we find that in our city druggists of good standing ridicule the idea of affixing a poison label to such a preparation as the solution of atropia, even after having been *ordered* to do so by a physician's prescription, then we think something should be done.

This matter certainly falls more immediately under the province of the Pharmaceutical College, but is of great importance to every medical practitioner in the country. We have been given to understand that a new bill concerning the sale of poisons is to be introduced before the Quebec Legislature at its next session. If so we would recommend that provision be made in it for *properly labelling* all poisonous drugs when dispensed and would especially call upon the medical members of the House to see that such becomes law.

MEETING OF THE CANADIAN MEDICAL ASSOCIATION.

We give in another column a synopsis of the report of the annual meeting of the Canadian Medical Association which took place at the city of St. John, N. B., on the 6th and 7th August last. The proceedings were soon over as there was not a large amount of business to be transacted. Several interesting papers on various subjects were read which elicited lively discussion.

After the close of the second day's proceedings, the members of the Association at St. John, entertained their visitors most handsomely at a dinner given in the spacious apartments of the Provincial Lunatic Asylum. This social gathering was not exclusively medical, it was largely attended by the *élite* of St. John, His Honour the Lieutenant Governor gracing the occasion with his presence and presiding as chaiman.

After the guests had fully partaken of the good things provided, and the customary loyal toasts had been disposed of, the real business of this social gathering commenced and was kept up with unusual spirit. We were told by a gentleman present that he had seldom enjoyed himself to the same extent as on that occasion. The off-hand speeches were very racy, and the witticisms ready and to the point. We are not aware if the title of Blue Nose applies to the New Brunswicker as well as to the Haligonian, but one would fancy that there must be something unusually bracing in the air of our sister Provinces; full of wit, repartee and as we would term it in this province *bonne amitié*, their visitors will not likely forget the occasion of the meeting of the sixth Annual Convention of the Canadian Medical Association held in the city of St. John, N. B., and the many pleasant and instructive hours passed with their *confrères*.

GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION FOR THE DOMINION.

We were rather gratified to observe that the Canadian Medical Association at its last meeting at St. John, N.B., did not take up or discuss a Medical Bill. We think that the Canadian Medical Association is not the place for such a discussion. If as a profession we feel that reform is necessary it can alone be obtained by united action. As a profession we should endeavour to unite, and such petty differences a those of creed, nationality or territorial position should not be permitted to divide our ranks.

We cannot see why we should not go to the House of Commons and obtain from it a bill or act to establish a General Council of Medical Education and Registration for the Dominion.

In this number of the journal we publish a paper from Dr. Botsford in which that gentleman shows the practical bearing of a proper system of registration. We have before alluded to the subject of a general law, and the necessity of carrying out a uniform system of registration. For, if we possessed a council such as they have in Great Britain, then indeed might some good arise. It is alone by pointing out and laying bare the fact, of a large mortality, from preventable disease, that communities will engage earnestly in the work of prevention, or at least of ascertaining the actual causes. of the high death rate, with a view to their removal.

We suppose in introducing such an act the Local Legislatures would have to yield their consent, but to this we do not think any exception would be taken. We will refer to this subject again at an early date.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Extraordinary case of passage of hairs from the bladder, giving rise to irritation of the bladder and frequent micturition. By JAMES A. SEWELL, M.D., L.R.C.S.E., Professor of Theory and Practice of Medicine, and Dean of Medical Faculty, Laval University, Quebec.

Ann Vaughan, an orphan, at 3 years and 9 months, was admitted into the Female Orphan Asylm of this city, on the 18th May, 1873. She is very backward of her speech, and is of feeble intellect, though apparently she understands tolerably well what is said to her. Her habits are uncleanly, passing everything on the floor in a standing posture, and in the presence of the Matron.

Before her admission she had been adopted by a very respectable family, who discovered shortly after, that she was suffering from irritation of the bladder, passing water very frequently, with more or less pain.

On examining the urine each discharge was found to contain a number of hairs varying from one to seven inches in length. Examined under the microscope each hair showed a well defined bulb and all the characteristics of ordinary hair.

At this date she is still suffering from the above mentioned irritation, and passes about a dozen of these hairs every day. Generally, they are very fine and of a light color—occasionally, they are coarser and darker.

So far my case, though an uncommon one, is not unique,

as I find Coulson on diseases of the bladder, reports three cases as having occurred in the practice of Sir Henry Sloane and one in that of another gentleman.

There is, however, another feature in this case, which, added to the facts above detailed, makes it really, so far as I can discover, perfectly unique. The child is constantly drawing similar hairs, from 8 to 10 inches long, from her mouth. These are frequently coated with bloody mucus. There is no calcareous matter attached to the hairs found in the urine. The fluid is of a specific gravity of 10 18, and contains neither blood, pus, nor mucus globules. I may add that I have discovered these hairs in the child's urine passed in my presence. I have never seen her draw any from her mouth, but some of the lady visitors have, and moreover, I can rely implicitly on the report of the Matron.

If you consider the case of sufficient interest, you will oblige me by inserting it in your journal.

Quebec, 27th August, 1873.

Case of Acephalus monster of seven months fœtation, occurring in a primipara, by FRANCIS W. SHIRRIFF, M.D., L.R.C.S.E., Huntingdon, Quebec.

The following case of acephalus monster may prove of interest to your readers. It occurred lately in my practice, and I may state that it is the first case of the kind I ever met with during a practice in this country of over forty years.

On the 17th October, instant, I was called to visit a young married woman who was in the 7th month of pregnancy and was then supposed to be in labour. Stated that she had enjoyed uninterrupted good health, since the commencement of her pregnancy until the 13th, when after a journey of 13 miles in a waggon she felt sore all over, and

found her abdomen to be rapidly increasing in size. Remained in bed all the 16th. During that night she began to have pains in her abdomen, and had also a considerable discharge of water from the vagina. I found the abdomen greatly distended, equal in size to a woman at the full time about to have twins. The motions of the fœtus were quite perceptible. The os uteri was still undilated and very high up, and I could not tell what was the presentation. As the abdomen elicited a tympanitic sound, a turpentine enema was administered, and hot applications to the abdomen, which relieved the tenderness. In about six hours I could introduce my finger through the os, and I found the membranes to be entire, and that there was a great quantity of Liquor amnii. I introduced a probe into the uterus and ruptured the membranes, as I believed that the over distention of the uterus prevented its proper action. An enormous discharge took place and more severe pains came on almost immediately. In a short time I discovered an ear presenting, but there was something so remarkable in its surroundings that I was puzzled. When the fœtus had descended to the perineum, I found to my surprise that I could hook my finger around the humerus at the axilla. I pulled the arm down and in few seconds the whole fœtus was expelled, and a most remarkable discovery was made, and all my anxieties about the presentation were explained. There was a face with two ears projecting upwards like a cat, eyes projecting forwards but no orbit, a flat nose without bones, and absolutely no brain, or cranium. There seemed to be an ill-formed base of skull, covered with a thin purple skin continuous with the true skin of the back. There was no neck, the head resting on the clavicles and sternum. The fœtus was female, and the rest of the body was well developed. The child was alive shortly before its birth, but shewed no signs of life after it was born except a clenching of its fingers on its palms. The parents are both handsome, healthy young persons. After the expulsion of the placenta the uterus remained

large for several days, and there was considerable fever and irritation, but the patient has now recovered.

Huntingdon, Oct. 1873.

Address on Surgery, delivered before the Canadian Medical Association, at the sixth Annual Meeting, held in the city of St. John, N.B., 6 and 7 August, 1873. By WILLIAM H. HINGSTON, M.D., L.R.C.S.E., Surgeon to St. Patrick's wards, Hotel Dieu Hospital, Montreal.

While thanking you for the honourable position your partiality has assigned to me, I am fully sensible of the difficulty of dealing, in a satisfactory manner, with so important a subject as Surgery ; and especially of giving an *apercu* of its condition, its status, in this extensive but thinly populated territory.

Since the organization of this important Association, destined, let us hope, to cement into one body the members of our profession scattered throughout this vast Dominion—the addresses have been confined to those delivered annnally by the retiring President, and on such general subjects as fitted the occasion. It was resolved last year to inaugurate at this, the sixth annual meeting, addresses in Medicine, Surgery, Midwifery, and Hygiene, and, speaking in the interests of this Association, I cannot but regret that to some other had been confided the first address in that branch of the healing art which pertains to external therapeutics—the *quod in therapeia mecanicum.*

The fact that, in this Canada of ours, partially rescued, as it were, but yesterday, from the primeval forest, and its lordly master the red man, an association of this character should have been formed, is, in itself, an indication of a progress which has no parallel save in the adjoining republic ; and the circumstance of a division into the various departments which make up the general science of medicine as a whole, is an indication of the advanced condition of each. But a few years ago, and in the place where we are now

assembled, the *Medicine* or *Mystery* man, the Maskiki inini, sought, by incantations and other devices, to relieve the distressed in body of their sufferings. And even now, near where villages dot the surface, and towns and cities usurp the primeval forest, charms and amulets and the potent mystery bag are, despite the laugh of the white man, used to ward off the ills and perils of life.

The history of Surgery in this Dominion is the history of its civilization. When Jacques Cartier dropped anchor at the foot of Hochelaga, (at a period when Polypharmacy drenched its victims with its multifarious combinations) and when his fellow-countryman, Ambroise Paré, made known *au très Chrestien Roi de France et de Pologne* the boldness of his surgical skill, the aborigines also had their doctors and conjurors who were valued as dignitaries in the tribe; "the greatest respect was paid to them by the whole community, not only for their skill in their materia medica, but more especially for their tact in magic and mysteries." "In all tribes their doctors were conjurors, 'magicians,' 'soothsayers,' 'high priests.' They superintended and conducted all ceremonies." "In all councils of war and peace they had a seat with the chiefs, were regularly consulted before any public step was taken, and the greatest deference and respect were paid to their opinions."* It is meet, Mr. President and Gentlemen, that in this, the first address in Surgery before the representatives of the profession in this Dominion, I should say a few words of that singular class of men now fast passing away, our *devanciers* in the healing art on this continent; and however much may have been achieved in that art since then, we, their *remplaçants* must admit, that with less mystery and with better claims to regard, we receive not always so considerable a degree of influence and consideration. But waving wheat fields take the place of forests; the red man wends steadily and fatally to the setting sun; and our forefathers of European

* Catlin

origin usurp their places. New arts are substituted for the old—and mystery bags and their appendages, the "toes and tails of birds, hoof of deer, goat and antelope, and the tails and tips of almost everything that swims, flies, or runs," to make great medicine, gives place to a somewhat rude surgery, and to a crude and ill-digested materia medica. It is interesting to trace the rise and progress of surgical science in Arabia and Egypt, and its gradual extension to the West, where, in our day, it has attained an elaborateness—a refinement—little dreamed of by our forefathers. It is no less interesting to note the rise and advance of the healing art on this continent. Without much effort of imagination, we may fancy the Indian youth preparing himself for the practice of the art, wandering from his father's lodge to some secluded spot, fasting for several days, and, with his face to the earth, praying to the Gitche Manitou —the Great Spirit, to designate to him in his dreams the beast, bird or reptile He has destined to be his mysterious protector through life, and his conductor to those fair hunting grounds in the kingdom of Ponemah—the Land of the Hereafter. The dream is no doubt sometimes proportionate to the valor or ambition of the dreamer,—and the black bear or panther is trapped or slain by the young brave to form "great" medicine, while the more timorous supplements his dream with raccoon, porcupine, weasel or civet.

The aborigines had their surgery—simple but effective—to which even their usurpers were sometimes forced to have recourse. Contused wounds and bruises were treated by cold douches from springs and running streams; and suppurating wounds with the bark of the mucilaginous slippery elm (Ulmus flava), and basswood (Silia), and the resinous bark of the tamarac (Larix americana)—all excellent emollient and stimulant cataplasms; and ulcers were stimulated to granulation by the inner wood and berry of the juniper (genus juniperus). They reduced dislocations by main force, and also, it would appear, by a rotatory method,

which seemed somewhat like that introduced to the profession by that distinguished American surgeon, Nathan Smith. Fractures (which rarely occurred among them) were carefully set, and splints of cedar or broom, ingeniously padded by the squaws with leaves or grass, were bound upon the limb with withes of the young birch (genus Batula); and amputations were performed at the joints with knives of flint or jasper (and in some places of copper), polished and keen as steel*—the spouting vessels were seared, and hemorrhage arrested with stones heated to redness. These practices are still continued among the tribes far removed in the interior.

With, or soon after the advent of the white man, and his higher wants, his higher civilization, and his diseases of a commensurate complexity and intricacy, came the Medicine White-man, the Te-ho-pe-nee-wash-ee of the West, or the Maskiki inini of the North, who fraternized not with his red confrére—upsetting the old adage "similis simili gaudet." It may not be generally known that the members of the legal fraternity were not allowed, while the French were yet masters, to reside in Canada, and practice their profession; the reason assigned being, say the chronicles of the time, experience had taught they had sowed trouble wherever they went (ils semaient le trouble partout ou ils allaient). Canada during French domination, realized, in this respect, the day-dream of Sir Thomas More, who excluded lawyers from his Utopia. (By way of parenthesis it may be observed, those who now enjoy the *quiet* luxury of their presence, will admit that the disciples of Justinian have much improved since then). The first mention of a surgeon destined for Canada is in 1640, when M. Maisonneuve, obliged by a storm, which endangered his vessel, to put back to France, three or four persons deserted him, among whom was "Celui qui lui etait le plus necessaire de tout, le chirurgien." Admiral Courpon, however, who had

* The preparation of these instruments was oftentimes the work of years.

preceded him, and who had arrived at Tadousac, was told of the mishap, especially in the loss of the surgeon, whose services would have been indispensable in the formation of the new establishment, which could not, Maisonneuve observed, be effected without the effusion of blood. De-Courpon generously offered his own surgeon, and the latter, apprised of the urgent need of him, had his chest lowered at once into Maisonneuve's boat, and cheerfully followed. What his name was, is not stated. The first mention of a commission to teach surgery was in 1658 when Jean Madry obtained, from Sieur Francois Banroin, first surgeon in ordinary to the King, and Provost of the Royal College of St. Côme, in the University of Paris, not only letters of "surgeon" for himself, but also the power to establish, in Canada, the mastership of surgery in all the towns and villages, in order, said the edict of the time, "dans leur besoins, les passants et les habitants puissent être mieux et surement servis, pansés et medicamentes." But these letters patent, though registered, became dead letters. The first student in Medicine, and the only one of that time, was Paul Prudhomme, brother-in law of Madry, who, for the space of three and a half years, so the document says, was to be taught "son art de chirurgien et tout ce dont il s'occupait et entremettait dans cette profession de Chirurgie, Medicine et Pharmacie." The earliest practitioners were all called surgeons—the term physician or *medicin* was not used by the early settlers. Surgery, therefore, had precedence in this colony over Medicine, as both had precedence, in point of time, over law; and whilst practitioners treated diseases, prepared medicaments, and operated on the wounded, in all the early public acts they were called surgeons, and were qualified by that title; and on the vessels the name of surgeon was given to the officer of health who accompanied. The reason given was this; that in a country where the whites were exposed incessantly to the attacks of the natives, in which nearly all the first colonists were destroyed by them, the art of surgery was,

as the documents state, "d'une necessite plus pressante, et d'un usage plus frequent." For twenty years thereafter, there were but five (5) surgeons in what is now the largest city in the Dominion; their names are given, and a writer of that period wonders how so many could have subsisted. But to prevent any possibility of interfering with each other's interests, (would that their successors had continued to be as scrupulous!) they threw their whole earnings into one common fund, and, by a contract of association, their books, furniture, food, merchandise, furs, and the fruits of the earth, instruments of surgery, medicines, and their whole revenue, and also contracted that none of them should go into debt for a greater sum than five coppers, and that only in case of urgent need. At the end of four years their books were balanced and each one received an equal share. It was also stipulated that if either of them died before the expiration of the term, all his interests belonged to the survivors. Those men, and their early successors have passed away, and so arduous was then the struggle for existence, they have left no written record. Pale faced women from old France exercised the healing art more than two hundred and fifteen years ago, when Nova Scotia, New Brunswick, and Ontario were unexplored wildernesses. At two spots—Montreal and Quebec—were they to be found, screened by palisades from the Iroquois—warding off their encroachments with the one hand, and with the other, by kindness giving evidence of their love of Him who healeth our diseases and redeemeth our life from distruction.

The science and art of surgery has been so steadily progressing since then, that I know not what most to draw attention to, in the few remarks time will permit me to make. The field over which my thoughts have wandered, in making a selection is vast and various. It embraces the accumulation of many thousand years of patient toil, each country—even our own—adding something to the general store, till it approaches a precision, and a definiteness, a completeness not yet—perhaps never to be attained by

her handmaid medicine. Knowing well I speak in the presence of men, older, wiser and better instructed than I am, I shall limit myself to a few subjects of general interest —subjects concerning which, somewhat favored circumstances enable me to speak with a moderate degree of confidence, *avec connaissance de cause.* And in doing this I shall go but little beyond, and in most instances keep within the period that has elapsed since the organization of this Society in Quebec, eight years ago.

Since that organization chiefly, the views regarding modification, aud most important advances have been made in the treatment of inflammations generally, and of the inflammatory fevers consequent on traumatic injuries and surgical operations. A word or two will explain this position. If a man of health be rated at par—to use a commercial phrase—the maimed, the injured, should not, ought not to be considered as above that desirable condition, to be reduced to, or below it. Far otherwise is the treatment generally to be followed, and many surgeons now seek to raise rather than to depress, the already weakened vital powers, by nutritive food, tonics, and if need be, by stimulants, and in some cases by the transfusion of blood. The antiplogistic treatment of inflammation bids fair to be soon consigned to its last resting place, and I shall be happy, if, with my feeble voice, I am permitted to aid in singing its *requiem.* The early local employment, by the Prussians, in the recent Franco-German war, of warm water instead of cold, is a recognition of that principle, and of the necessity of avoiding any depressing agency. Experience taught them that in bruises, wounds, ulcers, fractures, &c., warmth was far more grateful to the sufferer, and patients did better under its early use.

Almost coeval with the existence of this Society, the means of arresting hœmorrhage attracted renewed attention from Sir James Simpson's effort to substitute acupressure for the ligature, which, since its introduction by Ambroise Paré, in the 16th century, held supreme sway. In the

large hospitals of Europe and America, its use is become more and more general. Surgeons are now desirous of closing arteries so effectually as to check any hœmorrhage. (which ligature certainly does,) yet leave no foreign substance attached to, or semi-detached from, the living vessel; to leave no sloughing or suppurating wound to wash away a dead piece of artery and the now useless ligature itself. Thiéry, Amussat and Velpeau endeavoured to accomplish by Torsion, and Simpson by Acupressure, what Fleet Speer has accomplished by the Artery Constrictor—a method which seems to possess many of the advantages of acupressure, and none of the disadvantages of ligature. While each of these methods has special advantages in certain cases, the time, I believe, is not far distant, when the ligature will be laid aside by others—as it has long since been by myself. The temporary employment, in anæmic subjects of acupressure before or during an operation likely to be accompanied by much hœmorrhage, is an expedient of value—preferable to the aneurism needle—and is quicker and safer of application.

Anæsthetics.—More important still than the question of hœmorrhage is that of *anæsthetics*—and one which is now attracting much notice. We, in Canada, follow the practice of the British in the use of chloroform in preference to the safer anæsthetic —Ether. The circumstance that the number of deaths from chloroform is greater than formerly, amounting to upwards of a dozen published cases a year in England alone, apart from a much larger number of *un*-published ones, has created well founded alarm, and the favorite anæsthetic of our neighbors, with the bichloride of methyl, are attracting a large share of attention. The mortality returns published by Dr. Morgan show that we are using the most hazardous of all the anæthetics:

1 death	to	23,204	administration	of ether.
1 "	to	5,583	"	of ether and chloroform.
1 "	to	5,000	"	bichloride of methyl.
1 "	to	2,873	"	chloroform.

The chief objection urged against ether—the length of

time required to induce insensibility—is not tenable, as ether properly administered will induce complete anæthesia in as short a time as chloroform, though the struggles during its administration may be greater. Our experience of the bichloride of methyl is yet too limited to warrant any general remarks.

Fractures.—The comforts of patients has been greatly added to by the treatment of fractures generally, by extension with weights and pulleys, without pads, without bandages or rollers, without splints of wood, gypsum, starch or glue. Thanks are chiefly due to an American surgeon (Gurdon Buck) for this vast improvement.

Dislocations.—To another American surgeon, Nathan Smith, is due the credit of the ready method of reducing dislocation by the surgeon's unaided efforts; and traction with pulleys is now rarely resorted to.

Skin Grafting.—Large surfaces of denuded integument are now covered by healthy skin taken from another part of the body, or from the body of another, and grafted in small pieces on the raw surface. So important is this method of Reverdin, that I quite agree with Morton in styling it, "one the greatest surgical advances, if not the greatest, of the present age."

Electrolysis.—Though this is the age of bold and daring surgery, there are places where even the boldest and most daring dare not enter his knife. Here the surgical chemist comes to his relief. Electrolysis has become so important an adjunct to the armamentaria of the surgeon as to induce an American writer to style it, from its perfect manageability, the King of Caustics (he meant the President no doubt.) Where extensive tumours are to be removed, without the loss of blood, in patients of feeble health; where disfigurements would follow the use of the knife; and where local and general irritation are to be avoided, *a tout prix*, electrolysis, by means of the *positive*, as well as the negative *electrode*, with needles of zinc or platinum, has, in the hands of Stroh, of Olmutz, in Austria, and Althaus, in

London, and of others, been most serviceable. It does seem a fanciful proceeding to introduce needles into a solid mass, however large, and in situations, however deep, and with a prolonged and feeble current, without chloroform or ether, or, with a powerful stream with anæsthesia, to dissipate into thin air (hydrogen) leaving scarcely a "wreck behind" of shrunken grey or brownish tissue, harmless, innocent, innocuous. Nævus, lupus, sarcoma and cancer have in these ways been made to disappear; and intelligence reaches us from Italy, France, Great Britain and the United States, of the apparently successful employment of electrolysis (under the name of galvano puncture) in aortic and other aneurisms. Ciniselli mentions, in "Il Galvani,' having treated five cases, in three years, of thoracic aneurism alone. Granting, however, to electrolysis much that is claimed for it, it can never take the place of the knife; but there are cases occasionally met with where the knife is inadmissable, and where the method of Groh and of Althaus, judiciously employed, has attained a success to dissipate the smile of incredulity with which their method was first received by the profession.

Galvanic Cautery.—As a corollary, the galvanic cautery as recently introduced by Marshall, is another weapon in our hands for warring against peccant disease, and, like the invention of Chassaignac (over which it has no advantage) is a safe instrument to be used by the timid, who prefer the sear dry edges of a wound, to the trouble of looking for, and the risk of not easily finding and securing the divided vessels.

L'Aspirateur.—The last general method I shall notice is the aspirating syringe and exploring needle, destined to be of much advantage to surgery—though not, as some claim, invariably without danger. While on the other hand it has been repeatedly used, and with advantage, in distended bladder and strangulated hernia, in empyema, and in purulent peritonitis, without untoward symptoms, its use has been followed by death in at least one instance, where, a

priori, no danger would seem to be reasonably apprehended. Cysts, anywhere and everywhere, are treated with it, and whether as an aid to diagnosis or to treatment, abscesses of the liver, periodical effusions, and dropsical swellings of the joints, are dealt satisfactorily with by this pneumatic method.

Carbolic Acid.—Before passing to special subjects I have merely to observe that carbolic acid has now fairly taken its place in surgery. It is needless, therefore, to criticise its claim. It has been enthusiastically adopted by some, and as sternly rejected by others ; but a little less enthusiasm on the one side, and of obstinacy on the other, and carbolic acid settles down into its appropriate niche of usefulness—not, in killing germs, hatched by enthusiasts for the nonce that they *might* be killed, but in diminishing suppuration and in opposing septicæmia.

Passing to the domain of Special Surgery I shall have time but to allude to the vast strides made in Ophthalmology Entropion and Ectropion, (those troublesome diseases which hitherto resisted all efforts at permanent alleviation) are now managed by Schnell and others differently, and with lasting success. Obstructions of the duct are treated by a new method which preserves the patency of the natural channel. The classic operation of Weber no longer holds empire and sway—but has given place to those of Von Graeffe and Liebreich.

The ear, which some aurists taught us to respect so far as to advise us not to permit the introduction to the tympanum of an instrument smaller or sharper than the elbow and that, the elbow of the owner of the ear, now tolerates, not only punctures of the membrane of the tympanum, but tenotomy of its tensor near the malleus—or of myotomy in its course—an operation which, early and judiciously performed, will often relieve suffering and preserve the integrity of the whole organ.

Paracentesis of the membrane of the tympanum, and the use of the air douce in purulent inflamation, or cattarhal or hemorrhagic effusions, may not always preserve hearing

but may and does sometimes preserve life, when disease is spreading to more vital parts. Those who dread to approach the ear in that way, may learn to pass a small catheter through the entire length of the Eustachian tube from the pharynx to the anterior wall of the tympanum.

May I be permitted to make a practical suggestion *en passant*. Might not the deafness which has so frequently occured in some parts of Canada in the course of the recent epidemic of cerebro-spinal meningitis, be prevented by the timely use of paracentesis?

Unheard of liberties are now being taken with the *nose*. In addition to Thudicum's method of treating ozœna—that opprobrium medici, ozœna, is being transferred from the domain of medicine to that of surgery—and the mucous membrane gingivolabial furrow is divided with the frænum, the cartilaginous septum to nasal spine, and the nasal cartilages too, if necessary, the nose turned up, and the necrosed bone, giving rise to the odour, removed, and the parts brought into apposition. Primary union without deformity takes place, and the cure is complete.

So long as we keep to the outer man we are safe ; but should groping for disease carry us within the patient's mouth, we are in the domain of the *oral* surgeon. Save the mark! The oculist and aurist, with great advantage to science and humanity, take charge of the organs of the special senses of sight and hearing, and the field for either is sufficient to satisfy the desire of intelligent ambition. The dentist, now styled doctor of dental surgery, looked after our teeth, and well satisfied are we when his operations are confined to their inspection. But now the buccal cavity is claimed as the fishing-pond of the oral surgeon. Pardon me—the Doctor of Oral Surgery—D.O.S.! Happy thought! and happier title!! Oral surgery carries the science from the top of the mouth above, past, (and including,) all the teeth, incisors, canines, biscuspids and molars ; past the uvula, past the fauces and anterior palatine arch ; past the right, aye, and the left tonsil ; past the posterior palatine

arch to the epiglottis, catching up in its way the apertures of the various salivary ducts, and there leaves it. But it cannot, in this age of unrest stop there. There is room and capitals too, to furnish titles to the laryngeal, the tracheal, the clavicular, the sternal, the costal, the intercostal, the auxiliary surgeon, the humeral, the parietal, the genital, the inguinal, the femoral, the popliteal, the pedal, the phalangeal surgeon ; but here again, we encroach on the *terrain* of the comfort-giving corn doctor ; the Chiropodist, to whom I would suggest the appropriation of the title of D C.S., Doctor of Chiropedal Surgery ! And why not ? A toe is as good as a tooth, and there are fewer of them. *

Resignig the teeth to that excellent body of men—the dentists—and retaining the rest of the oral apparatus as the domain of the educated surgeon, by one of whom the most brilliant achievement of modern surgery has been effected in this department—Langenbeck's urano plastic operation—peeling off the periosteum and fibro-mucous membrane from its bed, to close, with bone forming periosteum and fibro-mucous membrane apertures that nature, in her caprice had left open, and yet maintain connection with surrounding living structures.

In the domain of bold and daring surgery is the recent operation—exceptionally dangerous in its character—removal or partial removal of bronchocele by the knife—thyrotomy, as it might be called—an operation, according to Greene of Maine, warrantable only when a "certainty of death stands opposed to a possible chance of safety by operative proceedure, giving the patient the chance, no matter now small it is, provided he or she make the choice, with a full understanding of the facts, and with no prompt-

* It must not be supposed that I aim a shaft at those who, with proficient knowledge in almost every department of our art, exhibit, by accident or otherwise, a predilection for certain departments of it. The educated surgeon is at liberty to select (and it is an advantage to the profession he should select, when and where he pleases. But a knowledge of the *whole* is an essential preparative to the successful study of a *part*.

ing by the surgeon," has been performed only about a dozen of times altogether, two-thirds of that number in the United States, and half of the remaining third, in part, by two distinguished members of this association, and without fatal consequences.

Early thoracentesis in pleural effusions occurring in the course of scarlatina, is now generally practised, and even the purulent collections are drawn off by an aspirating syringe.

Tapping the bladder with the fine tube of an aspirating syringe, in cases of retention of urine—in the opinion of M. L'Abbé, "a perfectly harmless operation, rarely followed by local tenderness or cystitis," and though it addresses itself to a symptom and not to a disease, diminishes the impermeability of the stricture and permits the easier passage of a catheter—an operation so easy as to induce M. Dieulafoy to assert that it is "painless, innocent, easy to execute and certain in result, requiring no special surgical knowledge or ability, and within the reach of all."

To obviate the necessity of resorting to this "painless," "innocent," and "certain" method, an American surgeon of eminence has introduced the vertebrated catheter (here exhibited) which, to read the discription given, has a special affinity to natural passages. Between all these methods, and the old-fashioned cat gut, and the *coup sur coup* dilatation,and the forcible catheterism of Bitot, by a steel catheter of large size with a deep groove, and an olive-shaped head; if the subject of stricture now permits a fatal blocking up of the water conduit—he should, as Sir Boyle Roach would say, be indited for it.

Passing to the other emunctory, the rectum also permits liberties not hitherto supposed susceptible of, in being so dilatable that all the fingers and the thumb, and even the whole hand (if not more than 9½ inches) may be introduced within its cavity, there to explore it, the bladder, and in the female, the uterus and ovaries. In stricture, in cases where dilatation is of no avail, the division of the bowel in its en-

tire thickness (including the sphincter) in the median dorsal line, is one of those eminently practical proceedings that one wonders it should so recently be introduced to the notice of the profession. Yet it is a safe and simple procedure, free from dangerous hemorrhage and from risk of wounding the peritoneum; and vastly preferable to the tedious and difficult operation of M. Verneuil—external rectotomy.

A few words more and I have done, much as I could desire treating of the surgery of the lower extremities, for which there is no time. What vast strides have been made in the higher Gynæcological surgery—the highest—the noblest department of our art inasmuch as it deals with organs and functions additional to those common in both sexes. The censure which, a few years ago, was heaped upon the surgeon who had the boldness to attempt the removal of an ovarian tumour would now, with greater justice, be meted to him who had not the courage to attempt it. From occasional success, the percentage of recoveries in Great Britain has steadily increased till the present time, when four out of five operations, in well selected cases, terminate favourably. On the continent of Europe the ill success that for a long time seemed to attend ovariotomy is now being improved. When in Vienna, in 1867, I was present at the eighth operation of the kind performed at the Krankenhaus—*all* of which had terminated fatally. But the success of Kæberle and others almost equals that of Keith or of Wells, and like that of those gentlemen, is steadily improving. In 1871, sixteen out of every twenty-two recovered; and in 1872, seventeen out of twenty-one; the number of failures diminishing from one-fourth to one-fifth. As an evidence of the interest now being taken in this department, no less than twenty-six papers have been published within the past six months, or upwards of 130 cases of complete ovariotomy, all presenting features of interest; but the method of removal which seems the most novel is that by enucleation, practiced in some instances in the United States, without

clamp, ligature, ecraseur or galvanic wire. But not diseased ovaries alone are removable with the knife, and from the womb itself, man's first resting-place from conception till birth from its substance or its cavity, the interior of which can now be explored as easily as the vagina itself, are removed growths *qui peuvent nuire.* The removal of the whole organ has been frequently practiced with success; and Mons. Pean claims for hysterotomy—partial or entire—a place among the regular operations of surgery. Even the gravid uterus, as it does not escape the inroad of disease, does not escape the knife, and in the early months of pregnancy the diseased os has been excised, and the patient has gone on to the full term of gestation.

I have not the courage, Mr. President and gentlemen, to detain you longer. While the science of surgery has undergone some changes, and the art has been advanced, simplified, improved, I must needs be content to lift a mere corner of the veil to obtain an imperfect glance at the more recent important changes in modern surgery—changes so recent as not yet to be embodied in works on systematic surgery.

And what share has Canada in advancing surgical science? Canada would seem to be a crucible in which German, French and British *science* is reduced to practical value, and made to serve as a foundation for our *art.* We, less deeply learned, less philosophical than the first, appropriate, and know how much, and how far, safely to appropriate, those seeming truths, a knowledge of which had been acquired by patient methodical study, which, in our altered circumstances, we are not yet able to conduct for ourselves. Less scientific than the second, less deeply versed in those laws they interpret so well, the immutability of which is the basis of all science, yet withal less speculative. With less leisure than the last to acquire knowledge for its own sake, we have time to seek only for its practical application for it would appear we, like Cato of old, estimate everything by what it produces, for even liberal knowledge with us is made to become *useful*

knowledge, is exalted into *scientific* excellence, looks for a result beyond itself, thence slides into an art, and is made to terminate in tangible fruit. In a word, we leave science no higher than we receive it, but we leave art certainly no lower. And which most, if not all, the achievements attained by means of manual dexterity and correct anatomical knowledge by our transatlantic brethren, have their counterpart here, the general laws on which are based certain principles and relations are, perhaps, less commonly understood. Separated from the busy teeming world of intellect, and placed where the struggle against external influence, like Darwin's animal creation, is keen and life long, if in this infant colony, we have not advanced the healing art, we have in no wise retarded it. The denizens of Paris, London, Vienna, have no adequate idea of the toil and fatigue endured by the early pioneers of this country who sought to bring to the maimed and the wounded the comforts of surgical aid. With what rude implements were fractures set, dislocations reduced and limbs removed. With, in country districts, forty or fifty miles intervening between surgeon and patient, representing almost as many hours of painful travel, those were not the days of conservative surgery, and many a person has hobbled about for the rest of his life on the dried trunk of a young sapling, whose leg would now, in any town or village of Canada, be preserved to him. The experience of old Nathan Smith is that of most men who have seen country life, where a goose quill has been improvised as a female catheter, and where amputation has more than once been neatly and quickly performed with the axe and adze, or chisel and mallet for toes and fingers, and for the arm or leg a jack-knife for the soft part and a wood saw for the bone. Let us not censure the chirurgeons of that period for their rough and well-meaning attempts. They were necessary and suited to the circumstances of each case.

Eighty-two years ago, Canada, then a wilderness, with here and there a village, there existed not a medical training

school on this vast continent. Now they are met with in every State of the adjoining Union, and in this Dominion alone there are something like a dozen, each vying with the other in claiming to advance the status of the profession. Every district has its well educated practitioners, some, indeed, of marked celebrity; while the large towns as Quebec, Toronto, Halifax, Kingston, St. John, Hamilton, Chatham, have hospitals with efficient staffs. Montreal has two, and numerous dispensaries, besides her three medical schools, and were a stranger to visit either hospital, both of which private charity has reared, he would see nothing in the appointments to remind him he was not in the famed Krankenhauser of Paris or Vienna. The strides in material prosperity have been almost unprecedented in this Dominion, and the progress in surgery and medicine has been coeval, the best illustration of which is the circumstance that each has its special follower, and while practitioners in the first division are content to be imitators of their trans-atlantic brethren, some (*quorum parva pars sum*) are so bold as to believe that operations, even the most hazardous, are here performed with dexterity, a *sang froid*, not inferior to what are exhibited in more favored Europe, and with a success, with modesty be it said, quite equal.

I have been almost tempted to place and group in relief certain features of surgical interest which Canada has had some small share in forming and in modelling. But the too immediate contact with those events and characters indispose me to treat of a subject which might lead me unwittingly to magnify, with undue importance, what is recent, and of the surface, and, perhaps, to belittle certain features which may not now be prominent, but which time will develope into more lasting lineaments of interest and usefulness. Some future medical artist, no doubt, will furnish the sketch, when the glance will be a retrospective one at those now quick with life who will then have become insensible to censure or to praise.

But one word of the present and I have done.

Do we not in Canada share fully in that tendency of the day, to regard surgery in its anatomical rather than its pathological aspect—to grope with the knife and to follow disease into deep and almost inaccessible structures, till it can scarcely be distinguished from the normal tissue around it, rather than to look in the seemingly healthy body itself for the source of the abnormity. From the nascent school of pathology, or rather pathological physiology, better things may be expected when surgery will not be a trade, nor a theatre for daring or desperate expedients, and when Macbeth's frenzied boast: "What man dare, I dare"* sublime courage in a soldier other than he,—cowardly and criminal in a surgeon—considering the armed condition of the one, the utter helplessness of the other—will find no one to re-echo it, no one to admire.

And although I believe with a distinguished writer, that "knowledge is one thing, virtue another—that good sense is not conscience, refinement is not humility," yet knowledge the most liberal, refinement the most cultivated, are not the less essential to one who aspires to be the intelligent instrument of Him who healeth our diseases. And although our institutions may have neither the prestige nor the status of those of favoured Europe, yet the advances in education have been such that aspirants for professional honours may easily and inexpensively obtain that liberal knowledge which should be acquired for its own sake—that knowledge which is a whole, and of which the sciences are merely parts ; that liberal knowledge which is necessary to fit one for the proper study of any of the professions, and especially that of the healing art—that knowledge which "stands on its own pretensions, is independent of sequel, expects no compliment, refuses to be informed as it were by any end, or absorbed into any art," though it may be followed by the cultivation of any.

When this general knowledge shall have become the

* Words used recently by a writer in describing *me judice*, a rash and useless operation.

basis of professional knowledge, this liberal education (as distinguished from useful), the necessary ground work of the preface to scientific education, then, and only then, will surgery with her handmaid medicine, attain a true position, as intellectual in its nature as it is heavenly in its aim, affording as a science and as an art, full scope for the highest, the noblest, the most diversified powers of the mind; and methinks, without the wish or the power to prophecy, should the next seven years add as much to the storehouse of general knowledge, as the seven which have elapsed since the formation of this society, have added to the stock of special or professional—something of which I have ventured hurriedly to pencil, the sufferers, and those who unceasingly endeavor to bring relief to them, would be equal gainers. And may those who now so kindly listen to me, and him who speaks, if still among the quick, be there to see.

HOSPITAL REPORTS.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

September 1st.—There are at present in Dr. Ross's wards three surgical cases of interest, in which operations have been performed within the past few days. They are :—

1st. *Calculus Vesicæ.*—The patient is a child of five years, of French Canadian parents ; born and reared in Laprairie. First symptoms of stone appeared two years and half ago, and have since become rapidly more apparent. No hereditary history of the disease ; child otherwise healthy. Stone first detected two or three days since. *Operation*—Chloroform being administered and the child secured in the usual position, Dr. Ross, assisted by Dr. McCallum, proceeded to perform lithotomy by the lateral incision. A stone was rapidly extracted having the appearance of a phosphatic calculus, and weighing two drachms. Urine flowed freely

through the wound, and there was no hemorrhage. On the fourth day urine flowed through the penis. This is the seventh day and the child is sitting up.

2nd Scirrhus Mammæ.—Right breast; glands of axilla unquestionably involved; commencing ulceration of skin in one part; patient aged 40 and cachectic looking; no hereditary history of cancer; is the mother of one child seventeen months old; never nursed it; it was fed entirely on the bottle.

Operation.—Assisted by Dr. Maccallum, Dr. Ross proceeded to remove the gland by the ordinary elliptical incision, but on reaching the axillary region, found the glands so glued together, and infiltrated as to render it impracticable to remove all those diseased, although he succeeded in enucleating a great proportion. Three or four glands in the infra-clavicular region could be felt also to be enlarged. The hemorrhage was much less than is ordinarily experienced in this operation. The edges were brought in nice apposition by wire interrupted sutures, and the wound dressed with carbolic lotion.

3rd. Railway Accident—The subject is a pale delicate looking youth of 19, but who has apparently enjoyed very good health. Is a brakesman on the Grand Trunk Railway, and tells the following story: On the afternoon of the 29th August (three days since) while in the act of coupling an engine to a car on the road near St. Johns, the coupling pin broke, and he was caught between the cow-catcher of the engine and the box of the car, the sharp iron rim of the former striking his left leg and causing the mischief to be described. The injury was temporarily done up, and he was sent to this hospital.

It was found on removing the dressing that both bones of the leg were fractured about three inches above the ankle. A wound four inches in length and gaping, with shreds of muscular and fibrous tissue protruding extended along the line of the fibula to near the ankle joint. The

finger could be readily passed round in all directions between the skin and subjacent parts; the skin had a sloughy look in places. The muscles appeared very much lacerated, and there was evidently great comminution of the bones; pulse 130; face anxious; great pain.

Drs. MacCallum and Fenwick saw the case with Dr. Ross, and in the opinion of all it was decided the limb could not be saved. The operation was accordingly performed by making an anterior and posterior flap with the scalpel alone, the bones being sawed about six inches below the knee joint. It was conceded by all that transfixion of the posterior flap is the more expeditious plan. All the soft parts were found very much bruised. The posterior tibial artery was found to be plugged by a firm clot, and did not bleed when pressure was removed. Half an inch of the vessel was snipped off, after which it bled, and was ligatured. The anterior tibial was pervious. The cut surfaces were bathed with weak carbolic lotion, and dressings of the same fluid applied. An hour after the operation the pulse was 140, full and regular. The day following he was suffering little or no pain; pulse 136: temperature 103; lower flap cool and of a mottled hue; took nourishment well. To-day the stump is 100 2-5; pulse 128; an erysipelatous blush extends half way up inner side of thigh; on removing dressing found lower flap cooler than rest of leg; a very small circumscribed slough was noticed at centre of lower flap; three sutures removed; stump injected with carbolic solution 1 to 30; carbolic dressings again applied.

Sept. 2nd.—The consulting staff of the hospital were called together to-day to witness the operation of *lithotomy* in a case under Dr. MacCallum's care. The subject was a male child of seven years, who, according to the account given by the mother, must have suffered from stone for three years. He was born and brought up in Montreal, is of Irish parentage, and there is no hereditary history of calculus. The lateral operation was performed by Dr. MacCallum most successfully, with the result of extracting a small but

extremely hard and nodulated stone—weight 36 grains. No hemorrhage followed the operation, and the little fellow was exceedingly comfortable after the effect of the chloroform had passed off. The urine flowed freely through the wound during the afternoon and evening.

At four o'clock this afternoon an Englishman of gentlemanly bearing, aged about 35, by profession an architect and civil engineer, was brought into the hospital, having been injured while in the act of jumping from the front platform of one of the street cars in motion. On examination he was found to have sustained the following injuries: A jagged wound four inches in length extended upwards from the inner side of the left elbow, and through it a large bundle of fibres of the biceps muscle protruded; the brachial artery could be felt pulsating through this wound, and pulse was felt at the wrist; slight oozing, chiefly venous. Of the bones composing the joint the only one fractured was the humerus, across and between the condyles, a triangular portion about an inch in length, being entirely separated; the joint was exposed and opened. There were two smaller wounds through which the point of the finger could with difficulty be passed, on the outer aspect of the joint. On the right forehead was a triangular scalp wound having one side two inches and the other an inch and a half in length; no injury to the skull. He was in a condition of collapse; extremities cold; temperature of entire general surface below normal; pulse almost imperceptible, indeed could not be counted.

All the wounds were injected with carbolic solution, 1 to 20, sutures and carbolic dressing applied, and the entire limb swathed in cotton, wool and flannel bandages to assist any reaction that might ensue; the limb was laid on a pillow. Champagne and beef tea were freely administered but the re-action was long delayed. At ten p.m., loss of power in the lower extremities was noticed for the first time; there was also free hemorrhage from the large wound in the arm. Everything considered, it was decided by Dr.

Fenwick, with Dr. Ross in consultation, that to remove the limb and thus effectually arrest the hemorrhage, was the proper course to pursue. Chloroform was accordingly administered, and the double flap operation rapidly performed, the limb being removed at the middle third of the humerus. After the operation the pulse was 130, and of better volume than before. He rallied slightly for a couple of hours, after which he became rapidly unconscious, and died about seven o'clock the following morning.

On post-mortem examination the following appearances were found: The bone in the position of the scalp wound was found uninjured. On removing the calvarium about half a pint of blood escaped, and the dura mater bled freely from innumerable points. This membrane had to be cut away from the entire length of the hemispheres on account of the great size and tenacity of the Pacchionian bodies. The arachnoid beneath was milky and œdematous looking, and large engorged veins traversed the surface of both hemispheres. In the serum effused beneath the arachnoid could be seen here and there flocculi of lymph floating in the spaces between the convolutions, while at the base of the brain the membrane enclosing the arachnoidean spaces was bulged out with the effused fluid within. The punctæ bled freely on incising the hemispheres, and all the ventricles were full of serum. The cord was also examined, and a similar state of things discovered, viz., blood effused external to the dura mater, and abundance of serum within the arachnoid, the gradual accumulation of which would no doubt account for the gradual paraplegia. The substance of the cord appeared unaltered. The other viscera were examined with a negative result.

This evening about 8 o'clock an accident which also proved fatal was brought in. It appears the subject, a French Canadian labourer on the wharf, aged about 40, who had been engaged only a few hours, was running round the corner of Messrs. Allan's shed with a hand cart, when the

freight train coming swiftly up the grade struck him with awful violence, and threw him to some considerable distance. On examination he was found to have sustained, in all probability, fracture of the base of the skull, as there was free bleeding from the left ear ; fracture of seven ribs on the left side from the second to the eighth inclusive, in the position of their greatest curvature ; and fracture through left ileum about the centre of the crest, and extending probably to the acetabulum. He was in a semi-conscious condition, but cried out lustily when disturbed, as in examining his injuries ; pulse 90, and weak ; he took the stimulant offered him when thoroughly roused. The motion of the injured side was controlled by broad strips of adhesive plaster extending from sternum to spine, and supplemented with a flannel bandage. The pelvis was also bound tightly with a flannel bandage. Cold was applied to the head, and heat to the extremities. In a couple of hours after admission he became quite comatose, in which state he lived twelve hours.

Sept. 4th.—The post mortem appearances in the case of the French Canadian injured on the wharf the evening before last, were as follows: extensive ecchymosis beneath the scalp covering the left temporal and parietal regions, and corresponding to this, within the skull was found a firm black clot of the size and shape of the normal spleen, being plano-convex. The convexity corresponding to the arched shape of the skull, the plane surface to the brain, the latter being pressed aside and flattened to make room for this mass. Below it rested against the tentorium and petrous bone. The entire dura mater covering the left hemisphere was deeply stained with blood, while the arachnoid and substance of the brain presented nothing abnormal. A fracture of the base of the skull diagnosed during life, extended through the entire length of the petrous and upwards and backwards through the squamous portion of the temporal and parietal bones, being in all about four inches in length.

Of the other injuries, the seven *ribs* were examined and removed. A portion of the left lung was caught in the fractured portions of the third and fourth ribs, and had already assumed a gangrenous look. The entire left lung was deeply congested. The heart was uninjured. There was nothing abnormal in the other organs. The pelvis was not examined.

Case of Consecutive Syphilis; brain complication. Recovery. Under the care of DR. ROSS. Reported by Mr. J. T. MOORE.

C. A., aged 27, a well developed man, by occupation a bargeman, was admitted to the Montreal General Hospital on the 29 July, 1873. He gave the following history:

In May, 1870, he contracted a chancre which must have been purely syphilitic, as he remembers he was ordered the iodide of potassium and sarsaparilla, and he afterwards suffered for some weeks from a troublesome sore throat and ulcerated mouth, for which he likewise received medical aid. He had been a hard drinker, but since he contracted the chancre has been very temperate, being warned of the consequences of intemperance. About the beginning of this year, or some six months before admission, he was frequently troubled with fainting fits, and would often stagger as he walked the street. From this he appears to have recovered sufficiently in five or six weeks to resume work. He caught a severe cold however, soon after, which, in his debilitated condition, took a strong hold of him. He now for the first time complained of severe head ache. Neuralgic pains corresponding to the orbital and supraorbital regions, and almost incessant in character. There were also nocturnal pains in the shin and other superficial bones, with probably periosteal swellings, but of these he is not so certain. He never appears to have been free from pain, excepting perhaps, for an hour or two each afternoon. His urine seems to

have been very high coloured also at this time. He constantly vomited his food. This state of things continued for about three months previous to admission to hospital on the 29th July. A large quantity of some preparation of mercury was, he says, administered to him during this last illness by some unqualified practitioner into whose hands he fell.

On admission there were evident signs of mercurial salivation. Tongue and throat ulcerated, &c. There are now very noticeable nodosities on the shin bones, with enlargement and induration of the post cervical and inguinal glands; impairment of memory; peculiar staring expression, with some difference in the two sides of the face as though there was partially developed paralysis of the 7th nerve on the right side. He complains at night of agonizing pain in the head of a lancinating character. He was ordered ten grain doses of the iodide with tincture of bark. In forty-eight hours after admission, the paralysis of the 7th nerve suspected fully developed itself, and he also became quite deaf and stupid. He still vomits at times after eating; appetite poor. When the pains in the head become very severe it is almost impossible to keep him in bed, and the morning after admission he was found at the other end of the building lying on the gallery in a state of nudity. His intellect is evidently rapidly giving way. The food and drink he takes constantly run out of the corner of his mouth, which annoys him exceedingly. The pulse is 60; temperature normal; bowels constipated. Is ordered a purgative and hypodermic injection of morphia, gr. ¼ at bed-time each night.

August 6th.—Slept pretty well since the hypodermics were ordered. He is extremely weak; heart's action feeble; extremities cold; features pinched; pulse 58; takes his beef tea and milk reluctantly; articulation labored; is not readily understood.

August 13.—His condition for the past week has been almost unchanged. To-day, however, is noticed for the

first time a want of power in the left arm and leg. He himself, however, asserts that he has felt symptoms of this condition coming on for the past four or five weeks; how much his statement is to be credited is another matter.

August 14th—He slept well during the night, but this morning about 6 o'clock fell out of bed, and has since been unconscious. He has at intervals slight general convulsive twitches, approaching at times a genuine paroxysm. Pulse 70; temperature 97⅘ in both axillæ; heart's action still extremely feeble, being scarcely audible. Ordered an enema of castor oil aud turpentine, which brought away a small stool.

August 15th—A change for the better in the symptoms noticed yesterday, occurred during the night. He is still however very morose and stubborn, refuses his food, and speaks in a mumbling drawling manner. The want of power is especially noticeable in the arm, the left leg being to all appearances little if at all affected. This afternoon he took a bad turn, becoming semi-delirious and talking incoherently. It lasted only a short time.

August 18th—This morning, although the hemiplegia is much improved, he has become quite delirious and unmanageable, getting out of bed and annoying the other patients in the ward by his shouting, &c. It is found necessary to tie him in bed, and towards evening he was removed to the padded cell used for delirium tremens cases. Here he refused to keep in bed, and had also to be secured, although he resisted most strenuously. He got a dose of chloral gs. xx., which had little or no effect, but a repetition put him into a sound sleep which lasted for some six hours. Before going to sleep he had taken some four ounces of brandy, his pulse being so extremely shabby.

August 20th—Yesterday he remained in somewhat the same semi-conscious condition of the day and night previous, but this morning a decided change for the better has taken place. He is however not quite clear in intellect

at times, being under the impression that he has been imprisoned, which by the way is not to be wondered at considering his surroundings—the barred windows, padded walls, bolted doors, &c. However there is more than the mere associations of the place producing these illusions; as he has a vivid recollection of some grievous wrong done, and talks in the most excited manner at times of the trial that is to take place, &c. His pulse to-day is 80; temperature normal; appetite increasing, eating in fact with a relish, and asking for more substantial food than broth and milk. He is still stone deaf, but perfectly comprehends written answers.

He continued to improve rapidly from this date forward, gaining strength and flesh, and sleeping soundly. The facial paralysis, however. remained unaltered, so that the saliva and drink he took constantly flowed from the corner of his mouth. His hearing also remained impaired, although at the time of his discharge he could understand when loudly spoken to.

He left the hospital for his home near New York city on the 5th September.

Case of Severe General Concussion with Fracture of five bones, and possibly of the skull.—Serious Brain Symptoms.—Recovery, under the care of Dr. Drake—Reported by Mr. J. C. Cameron, House Apothecary, Montreal General Hospital.

A. B., aged 29, by occupation a commercial traveller, of athletic build and temperate habits, was brought to the Montreal General Hospital early on the morning of the 11th March, 1873, suffering from injuries received while attempting to escape from the fourth storey window of the St. James' Hotel during its conflagration. All chance of escape by the ordinary staircase and roof having been cut off, he endeavored to lower himself to the street below by

means of the bedclothes ; one of the first knots gave way and he was precipitated to the hard pavement beneath.

On admission he was in a semi-conscious condition, but aroused readily, and on examination the following injuries were discovered : —

Left Arm.— Simple fracture of radius and ulna one inch above wrist ; compound fracture of ulna at upper third.

Right Arm.—Simple fracture of radius and ulna about one inch above wrist joint.

Pelvis.—A triangular portion of the crest of the ilium was found to be separated from the rest of the bone as evidenced by grasping the anterior superior spinous process of the left side, when distinct crepitus was felt.

Head.—A severe contusion above and to the inner side of the left orbit, but no depression of the bone could be made out. A fissure is suspected.

He complained greatly of pain, especially in the back and hips.

Treatment.—The right arm was put up with two straight splints thoroughly padded ; left arm with a single anterior splint ; the motion of the pelvis was controlled by strips of adhesive plaster and a broad flannel bandage, the thigh being slightly bent on the hip. He was ordered iced champagne ; sinapisms to the epigastrium and calves of the legs ; and a draught containing a drachm of morphia solution.

About twenty minutes after admission he commenced to vomit large quantities of blood mixed with bile, resembling coffee-grounds in appearance. His left arm became so painful that it was found necessary to re-arrange it. The back, meantime, caused him great agony. His pulse became weaker and weaker. Stimulants were given liberally, but the vomiting persisted, when it was thought advisable to try the effect of a hypodermic injection of solution of ergotine. Eight grains were accordingly administered with the effect of immediately arresting the hemorrhage and vomiting. He soon fell into a tranquil slumber. The

pulse, meantime, was very rapid but comparatively full considering the extent of injury. He was catheterized, and about ten ounces of bloody urine drawn off.

At noon of the same day the patient was still extremely weak and feverish; still vomiting blood at intervals; eyes completely closed by ecchymosis; no sclerotic visible by reason of extravasation; appearance very ghastly. Ice bags were applied to the head; ice and beef tea internally.

March 12th—Great pain in back and hips, especially the left; back of head and neck very tender and sore to touch; restless and delirious; no paralysis or loss of sensation in either extremity, but the left leg was crippled by the fracture of the pelvis before described; still necessary to employ the catheter; great intolerance of light; pupils normal, though inclined to dilate; very cross and irritable.

March 20th.—Nothing remarkable has occurred in the symptoms for the past eight days. The vomiting continued to a greater or less extent up to three days since. Altogether he has kept gradually improving; swelling of face is going down; eyes are assuming a more natural appearance.

March 30th.—Since admission he could not or would not use the bed pan, so that it was found necessary to lift him to the night chair when his bowels required to be moved. It was noticed that when he assumed the sitting posture a copious watery discharge flowed in a constant stream from his left nostril. Some of this fluid was collected and examined for albumen with a negative result. This discharge never appeared at any other time than when the head was thrown forward as in sitting, and then it was persistent and beyond his control. The neck and head are still painful. To-day, through the mistaken kindness of friends, and unknown to his attendants, he partook of some rich pastry, and felt much worse at night in consequence.

March 31st.—Quite delirious ; tongue dry and brown ; occasional vomiting ; refuses all food ; sleep much disturbed.

April 7th.—Continued improving till yesterday, when he partook of too much rich food,—vomiting large quantities of bilious matter ; complained of paroxysmal pain in forehead, and back of head and neck.

April 8th.—Passed a restless night ; nausea and vomiting continue. In the afternoon the vomiting returned. He is known to be predisposed to bilious attacks. An hypodermic injection of morphia was given with iced champagne, &c. The compound fracture was dressed today and everything found favorable.

April 9th.—It was thought as the vomiting continued, that the morphia might have had some share in its production, consequently to induce sleep Dr. Drake ordered a hypodermic injection of the sulphate of Atropia in two doses of the thirty-sixth of a grain. The condition of the patient at this time became so critical that a careful record of the daily temperatures was now begun, and which, it is to be regretted, cannot be presented in tabular form owing to the trouble incurred.

April 17th.—for the past three days he has been improving again, but this evening the temperature ran up suddenly till at 7 p.m. it reached 104 2-5 ; pupils widely dilated, and partially insensible to light ; severe paroxsmal pain in forehead, neck and back; food obstinately refused.

April 18th.—Delirium and pain much abated ; pupils still dilated and contract very sluggishly; is very drowsy and apathetic ; sleeps nearly all the time ; with great trouble he is induced to swallow small quantities of beef juice ; temperature 105 1-5. Dr. Fenwick saw the patient in consultation this afternoon. A thorough physical examination elicited the following : great emaciation noticeable since even a very few days ; left leg much more emaciated than right ; chest expansion less marked on the right side ; very

faint vesicular breathing, and a few moist sounds at base of right lung ; pulse full but jerking in character. The mental condition was as described above. He makes water in bed.

April 19th.—Slept very well during the night; temp. 102 1-5. For the past day or two something approaching Bell's paralysis has been noticed, the face being slightly drawn to the right side, and the eyelid of the opposite side does not close as tightly as it should. A short hacking cough also troubles him very much, and increases his irritable condition. He appears to be quite unconscious, and certainly does not recognize those around him. An examination of the urine elicited the following : Reaction alkaline ; sp. gr. 1020 ; loaded with albumen ; yields a heavy deposit on standing, which, under the microscope was found to be largely composed of lithates and triple phosphates ; no casts. His bowels not having moved for three days, an enema of castor oil and turpentine was administered, with the result of bringing away a copious stool. The bladder was also washed out with four ounces of tepid water, containing fifteen minims of laudanum.

April 23rd.—Urine still passed involuntarily; still alkaline but contains less albumen than before. It is thought the albumen may be due to the condition of his bladder which is the seat of more or less inflammation as evidenced by a deposit of muco-pus in the urine after it had stood for some hours. The bladder is now regularly washed out daily. He still lies in the same stupid mood, but complains bitterly when his head is moved ; temperature 103 2-5. His favorite position is the right side. The pupils act better than for the past few days. A draught containing twenty grains of chloral is ordered for each night.

April 28th.—For the past five days his condition has been almost unchanged, but if anything he has been growing weaker. He has had frightful dreams at times, and on two or three occasions has acted his part at the fire over again ; sometimes screaming at the top of his voice and becoming

almost unmanageable. It was found necessary to strap him to the bed for some hours one night, having worn out the strength and patience of his attendants. It has been thought improbable that his life will be spared; temperature yesterday 104 3-5.

To-day, however the temperature has suddenly fallen to 98, and a marked change for the better is noticeable. His mind is more tranquil, and he can be reasoned with and recognizes, as one waking from a dream, those around him. The features have lost a good deal of their pinched appearance, and the partial paralysis noticed on a former occasion, and which has persisted in a more or less degree ever since, is scarcely appreciable. At times, however, he is still very nervous and excitable, crying bitterly, or screaming out when things are not done exactly to his fancy. The urine to-day is acid. The temperature is still, however, higher than normal towards evening, and the pulse varies very much even within a short time. Hopes are now entertained of his ultimate recovery. The usual draught of chloral is to be replaced to-night by one containing a drachm Bromide of Potassium with half a drachm of the fluid extract of Hyoscyamus.

May 3rd.—Has been steadily improving since the 28th April. However, at times even yet, he is exceedingly fretful and childish in his behaviour, and when all is still at night will occasionally awake in a frightened manner and scream most lustily till the whole house is roused. He reminds one very much of a person in the nightmare, refusing to be pacified. The pulse now, however, is only 80, regular and of good volume; temperature normal. Has been moved to other quarters and appears to be much pleased and better for the change. The splints from the right arm have been removed showing an admirable result. The left arm was encased in a starch bandage three days ago, but he complains so much of a neuralgic pain extending along the ulnar aspect of the forearm and hand, (and which, of course, he attributes to the disease), that it is

found necessary to remove it and substitute an anterior splint with very light bandaging. The compound fracture of the ulna is yet very indifferently united. The external wound, however, has been healed for some weeks.

The patient steadily improved from this time forward, and left the hospital for the country on the 27th May, in a very fair condition of health.

This case was, in many respects, obscure, and no reasonable explanation could be given of the delirium, paroxysmal pain, and remarkable range of temperature. At one time his symptoms were ascribed to shock and concussion ; at another, fissure of the frontal bone was suspected ; while still again cerebral abscess was regarded as being not improbable. By looking at the temperature chart it will be seen that it followed no rule, but rose and fell with great rapidity at times, running up on one occasion as much as $6\frac{2}{5}$ degrees within twelve hours. The great pain in the frontal and occipital regions, and back of neck ; the dry parched tongue ; the marked and protracted intolerance of light, with widely dilated sluggish pupils ; alternating retention and incontinence of urine ; constipation ; nausea and vomiting ; and delirium, at times active, and again low and muttering ; all pointed to some inflammatory action going on in the brain or its membranes. But the symptoms occurred in such an irregular and anomalous manner, and were at times so contradictory, that it was impossible to determine satisfactorily the exact nature of the lesion, or its probable cause.

Reviews and Notices of Books.

The Student's Guide to Medical Diagnosis.—By SAMUEL FENWICK, M. D., F.R.C.P., Assistant Physician to the the London Hospital. From the third Revised and Enlarged English Edition, with 84 illustrations on wood. 8vo. pp. 320. Philadelphia, Henry C. Lea, 1873.

This book is one of those modern *vade mecums*, which from their containing so much in such a small space, and being so quick and easy of reference have come greatly into vogue amongst students of present years. A man preparing for examinations in medicine is now required to possess a knowledge of so many more subjects than was formerly the case, whilst the time to do it in has remained exactly the same, that it becomes almost a necessity for him to have his materials to some extent *concentrated* for him. *Practical* examinations—that is actual *clinical* examinations at the bedside in the Hospital, are now very properly included amongst the tests of proficiency of all candidates at most of the principal British and foreign Universities, and from year to year it may be noticed that more and more importance is attached to the answering on these occasions. It is here that a knowledge of the means in general use for the investigation of the physical signs of disease, as well as acquaintance with their interpretation, and with the various subjective symptoms presented, comes to be essential to his arriving ultimately at a logical conclusion concerning their significance. In other words he is called upon to show his capability for accurate *Diagnosis* upon which in after years, without doubt, all his future successes as a physician must necessarily depend. Condensed aids to medical diagnosis ought therefore to be looked upon as very useful to hospital and advanced students and to junior practitioners as well, and regarding the present work we need only say that it seems, considering its small size, and the large amount of

ground it has to cover, to be as complete as is possible. The plan adopted is that of dividing all the diseases of each organ into groups, by fixing upon some well-marked character which is possessed by some in common but which is wanting in others; and in the same way to divide and sub-divide each group. This seems to be a useful method of procedure, especially as it is apt to impress the mind with the leading and prominent features of such affection, together with a recollection of the somewhat resembling diseases from which the one under consideration required to be distinguished.

We cannot say that we find inaccuracies absolutely absent, and when present, from the necessarily dogmatic and unqualified statements of such a concise work, they tend to leave very erroneous impressions—impressions, too, which the student will find it hard to rid himself of. For instance, when speaking of the confessedly difficult diagnosis between typhoid fever and acute miliary phthisis, it is said "acute phthisis is distinguished from typhoid fever by the cough and difficulty of breathing, which appear earlier, and are more intense in the former, by the lower temperature, and the presence of the stethoscopic signs of tubercle when these exist." Now this may sometimes and in the main be correct, but we confess to thinking that the student who looks to *lower temperatures* as one of the positive distinctions of acute phthisis will inevitably often find himself mistaken,—for we have seen cases where the temperatures have ranged continuously *much higher* than in the typical or average case of enteric fever —and yet to an inexperienced person the opposite would seem to be always the case. Other similar faults might be pointed out, but it must be admitted that it is the necessarily narrow limits of the work which forbid that hesitation and qualifying of positive statements which finds place in any intelligent treatise of more room when matters of difficult diagnosis are concerned.

It is illustrated with 84 wood-cuts, principally from standard authors, and well selected.

The Pathology and treatment of Diseases of the Skin, by J. N. MILTON, Senior Surgeon to St. John's Hospital for diseases of the skin, Corresponding Member of the New York Dermatological Society, etc. 8 vo. pp. 348. London. Robert Hardwicke, 1872.

The treatment of any disease or class of diseases is nearly always that which gives rise to the greatest diversity of opinions owing principally to the numerous practical and theoretical difficulties which surround our attempts at ascertaining the true physiological actions and *modus operandi* of any given remedy. Further, accuracy of diagnosis is absolutely essential to the correct determination of the therapeutical value of any curative agent, and probably in no class of diseases is there more blending together and overlapping of the species composing it than in that under consideration, the skin diseases. Although, however, the study of dermatology is confessedly difficult, yet the importance of these affections, their extreme commonness, the inveteracy of many of their varieties, and the great suffering they are capable of producing, all combine to impress us with the necessity of every general practitioner being fully acquainted with the very best rational means to be adopted for their relief and if possible their cure. Mr. Milton's book therefore we consider very acceptable as embodying his clinical experience as derived from observations at the largest special hospital of the British Metropolis during a term of years. Besides giving a general resumé of the methods of practice at present recommended for each disease by the most eminent living and recent authorities, our author supplements this by much practical matter and is always ready to give expression to his own views and ideas on the subject. Indeed, we think, if there be a fault, it is that he is apt to be a little too dogmatic and authoritative, sometimes laying down the law quite fiercely and glorying in upsetting to his own satisfaction, some hitherto well-established doctrine of treatment. At any rate this is a fault on the right side, for we

prefer to find our author enthusiastic and energetic and willing to show grounds for his belief, rather than tamely submitting to follow in worn groves, only he must not carry this too far.

In accordance with the practical character of the work, the simplest classification possible has been adopted, viz., that of Willan, and in this we think he has done well. In the chapter on Eczema, besides the treatment, the author discusses its nature, its anatomical seat, its contagiousness, its hereditary properties, and the supposed danger of healing up an eruption of this character—and much that is interesting is to be obtained from its perusal; but we cannot say that on every point we would be ready to agree with Mr. Milton in his selection of diet and regimen. For example, he says, "there is one article of diet for the little folks, when suffering from bad eczema, syphilis, or severe scabies, which I give to an extent that will probably excite scepticism, when I announce it. I am quite prepared for this, having repeatedly noticed the surprise and incredulity which the statement almost always elicits. However, it is a question of fact, not credibility. The article I allude to is pale brandy, and the amount given is four, five, or even six tablespoonfuls a day to children under a year old." This exordium reminds us of a marvel-mongering friend who generally prefaces his Munchasian stories with—"you will hardly believe what I am going to tell you, but it is a fact." Now, we are not tee-total in our principles or our practice, but we must confess it will need a stronger recommendation than Mr. Milton's to induce us to daily inebriate an eczematous infantile patient with 3 oz. of strong French brandy.

Speaking of the employment of belladonna in and before scarlatina, the author is of opinion that this drug really is beneficial, though perhaps not to the extent claimed for it. For he says, "even supposing this view (that it is as useful against scarlet fever as vaccination against small-pox) to be overdrawn, enough still remains to show that belladonna

does exert control over scarlatina, and that there is every reason to believe, if it were freely and judiciously used at the outbreak of an epidemic, the number of fatal or even serious cases would be materially diminished."

On the subject of small-pox there is nothing new, and the old and exploded sarracenia purpurea comes in for a much larger share of attention than its absolute inertness deserves. The absurd and unsustained statements of Charles Miles, made 10 years ago, being quoted, although not confirmed. We may mention that about this time the repeated failures of this drug to exhibit any therapeutical action, when tested at the Montreal General Hospital, were published in this journal.

Some interesting cases of leprosy are detailed, and are rendered still more valuable by the addition of very excellent photographs.

An Introduction to the Study of Clinical Medicines: being a Guide to the Investigation of Disease for the Use of Students, by OCTAVIUS STURGES, M.D., Cantab., Fellow of the Royal College of Physicians, and Assistant Physician to the Westminster Hospital. 8 vo: pp. 127. Philadelphia: Henry C. Lea, 1873.

On reading this little book we cannot help being struck by its comprehensive and methodical arrangement. The author aims at producing a manual, which may supply suggestions, which do not fall within the province of set treatises, but yet, may be interposed with advantage between the book description and the study of the living thing.—Above all he gives the study a method upon which to work. This method is not insisted upon as being necessarily the best, but it is offered to the beginner, and he is left free to adopt it or improve upon it as he may see fit. The importance of method in diagnosis cannot be overrated. It is useful in all branches of study, and its importance has been recognised by one of the greatest Clinical teachers of the present day, (we refer to Sir W. Jenner), whom we have heard tell his class at a post-mortem, "gentlemen, in examining the heart, I do not care where you

"begin, provided that you begin always at the same place. "You may open the right heart first, or the left but let me "impress this upon you, whichever way you adopt, stick to "it." Dr. Sturges supplies a method which we are sure most students, and not a few practitioners, will find it advantageous to study. The author does not expect or wish the student to slavishly adhere to the plan which he gives him, but, so to adapt it to the bent of his own mind, and shape it according to his growing experience, that it may become in course of time, his own property.

Unlike some other manuals of clinical medicine, which are no doubt valuable, and a great assistance to both student and practitioner, the one before us is not a condensed text-book of Practice of Medicine, with a summary, necessarily incomplete, of symptoms and pathology, but it supplies a sort of general formula to work out the problem which is set before us, in every new case of disease with which we meet.

In speaking of the difficulty of the task which he has set before himself, Dr. Struges says, page 13:

"It may be taken for granted, I think, that no chart or book of instructions can foresee or provide against the many difficulties and sources of error which beset the student in his first analysis of those complex phenomena which are so precisely detailed to him in formal treatises. It should, in fact, be frankly admitted at this stage of his career, that the obscurity and doubt in which he finds himself is not wholly due to his own inexperience, but also in a measure inherent to the subject itself. The explicit statements and sharply-defined distinctions and classifications of the books have no precise counterpart in nature. It is right and fair that the student should know that there is more of uncertainty and failure and surprise in actual practice than he would be led to expect from systematic lectures, and not be left to wholly over-rate the really wide difference between his own early powers of diagnosis and the degree of precision of which the subject is capable."

The student is urged to examine for himself and to form his own opinions and to form his own judgment, and this manual is intended, in so far as a book can, to supply the training necessary to make the knowledge obtained in the class-room available. Too much dependence is not to be put on the many modern aids to diagnosis, and skill in the use of implements and familiarity with the most recent im-

provements cannot take the place of "that careful scrutiny of the patient which was necessary in darker times."

A plan is drawn up, which the author divides into sections A, B, C, D and E. A is the general survey, including the history and appearance and state of the functions. B, the examination of the regions. C, examination of the secretions. D, the diagnosis. E, the treatment. Before taking up each section in detail, some general rules with reference to the examination of patients are given. The part of the book devoted to the examination of the thorax and its contents is especially practical and valuable. A special section each, is devoted to percussion and auscultation, where the reader will find much that is useful, and perhaps something that is new.

In section IX the condition of the abdomen is taken up, as determined by its inspection and examination with the hands, and percussion, as well as by the physical and chemical analysis of the evacuations and secretions.

In the section on diagnosis we read as follows, p. 116. "Diagnosis, to be correct, should be methodical, deliberate, "interrogating each function in an unvarying order, and "repressing conclusions until the time comes for review- "ing the symptoms as a whole. By giving a weight and "significance to each symptom as soon as it is encountered, "we do but increase the difficulty of determining hereafter "their common leaning and mutual relationship." At page 118 we have the following remarks: "Readiness in dia- "gnosis often means nothing more than ingenious or audac- "ious guessing. It is to be attained—or the semblance of "it—either by neglecting to take into account the presence "of certain symptoms which go to contradict our conclu- "sion or by failing to notice others which are necessary to "establish them. A superficial and partial view of a case "will thus often seem to justify a diagnosis which a deeper "scrutiny shows to be untenable."

While speaking of the treatment of disease, several practical hints are given.

Dr. Struges is to be congratulated upon the masterly and systematic manner in which he has discharged his difficult task, and every student of Medicine will do well to study attentively the book now before us, which guides and instructs him, and at the same time does not burden him with a mass of facts, or repeat the instruction of the lecture room. The book is neatly bound and the type is good, as Mr. Lea's publications always are.

CANADA

Medical and Surgical Journal.

THE CANADA MEDICAL AND SURGICAL JOURNAL.

AN EXPLANATION.

In consequence of changes which we have thought proper to make, considerable delay has ensued in the publication of the October number of this Journal. We did hope to be able to deliver the Journal to subscribers during the month of October, but failed. The November number is also in hand, and will be published during the month. In making this announcement we must apologise to our subscribers for the delay, and at the same time assure them that in future we will endeavour to appear with regularity.

REGISTER OF BIRTHS, MARRIAGES AND DEATHS.

We trust that at the ensuing session of Parliament this very important matter of uniform registration will be fully discussed, and a bill submitted which will answer the requirements of the country. We are told it is a subject for the action of the Local Legislature ; if this is the case it is a mistake which should be remedied without delay. Registration to be of use, so that vital statistics may be reliable, should be general throughout the Dominion. A general system is needed. We have observed with gratification that in our sister province of Ontario a registration act has been introduced, and is, we believe, in full operation. The other Provinces are adopting similar acts, while we in Quebec are satisfied to remain as we were

one hundred years ago. This is certainly a reflection on our advanced civilization and one calculated to bring a blush of shame to the thinking members of our Local Legislature. Certainly, an act emanating from the House of Commons and operative throughout the Dominion is what is needed ; failing to obtain such a measure we will have to put up with the next best thing. There are many matters of general interest connected with vital statistics which demand legislative action, because without an act of Parliament, local Boards of Health are powerless. They may be able to point out what ought to be done and how to do it ; but how are they to enforce their suggestions. For instance, it is proved by scientific observation that a fruitful source of disease and death is over-crowding. This, we think, is so self evident that it does not require the additional force of scientific investigation to demonstrate. Is it not open to all men to note the amazing difference between the death rate of large cities and rural districts ? When we see in large cities an annual mortality ranging between thirty-five and forty per thousand of the inhabitants, and at the same time in the contiguous country parishes the death rate sinking to from seven to fifteen per thousand we should surely seek for a cause. Should we not take advantage of the experience of other communities ? When it is known that in as large a city as London, the annual death rate a few years ago was over forty per thousand of its inhabitants, and that by the judicious enactments of sanitary reforms the mortality has been reduced one half, should we not endeavour to follow in a like course and with earnest perseverance seek to obtain the powers to compel by law, and carry out measures which would tell on our numerical strength in the course of a quarter of a century. Why should there be in Canada "a voice heard, lamentation, and weeping, and great mourning ?" Why should we be compelled to weep for our children, and refuse to be comforted because they are not ? Have we in our own hands the remedy ?

WHOLESALE PILFERING.

The editor of the *Canada Lancet*, in his September No., announces the enlargement of his journal, and states:—"This we have been forced to do, owing to the amount of "pressure on our advertising space, and the increased "supply of original communications, many of which had to "be held over from month to month, for want of room." It will hardly be credited that the *Lancet* publishes in its original department of this same number, two papers from the pen of Dr. R. P. Howard, of this city, one which appeared in the December, 1872, No. of the *Canada Medical and Surgical Journal*, entitled, "Some observations upon Scarlatinal pleurisy and upon Thoracentesis in that affection," the other, entitled, "Cases of Fibrous polypi and Fibrous tumors of the Uterus," which was published in the July number of our periodical. These papers appear in the original department of the *Canada Lancet*, but credit is not given to the *Canada Medical and Surgical Journal*. Are we to infer that these articles were originally sent to the *Canada Lancet* and were among the "increased supply of original communications" which were obliged to remain neglected from month to month in the editor's drawer? We sent a message through a mutual friend to the editor of the *Canada Lancet*, as we freely believed it to be an oversight and one which would be cheerfully rectified. Such, however, has not been done, and the *Canada Lancet* appears in its October No. without any notice of the wrong. While wishing the *Canada Lancet* every success in its undertaking, we would remind it that the good old proverb is still in existence—"That honesty is the best policy."

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Each half-ounce contains 2 grains of Lacto-Phosphate of Lime, 1 grain of Iron and 1 grain of the Alkaloids of Calisaya Bark. We have used it with most marked benefit in several cases of general debility. It is prepared under Dr. Wheeler's superintendance. The Lacto-Phosphates being from the formula of Dr. Dusart of Paris.

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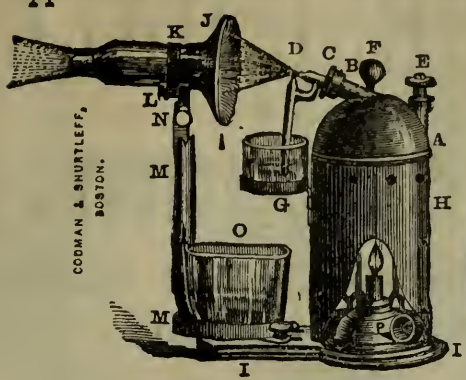

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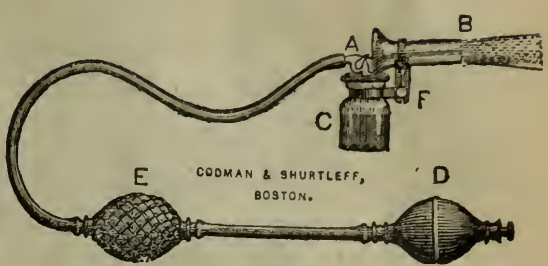

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All its joints are hard-soldered.

It cannot be injured by exhaustion of water, or any attainable pressure, and will last for many years.

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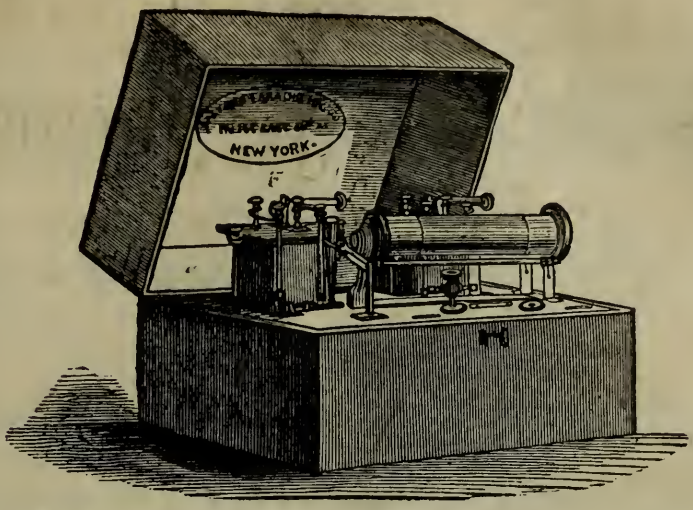

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Introductory Lecture, delivered at the opening of the Forty-first Session of the Medical Faculty of McGill University. By R. P. HOWARD, M.D., L.R.C.S.E., Professor of Theory and Practice of Medicine.

GENTLEMEN,—The revolving wheel of time has rendered it my duty to give this year the opening lecture of the Session to the Medical Students of this University, and while it is somewhat optional with the speaker what the theme of his discourse shall be, custom has almost established it to be the proper thing to address words of direction and counsel to those more especially just entering upon the study of medicine. And while conforming to a custom which has my own approval, I trust the older students will tolerate the common-place observations, which the recital of a tale so often told must contain; remembering that they were once freshmen, experiencing the same anxieties, doubts and aspirations, that probably possess at this moment, many listening to me.

Permit me first, gentlemen, in the name of my colleagues, to give all who are here for the first time, a hearty welcome to this School, and to assure you that we all take a sincere interest in you as young men entrusting us with the responsible work of teaching you the Science and Art of Medicine.

To the many now present whom we have had the pleasure of seeing occupy those seats before, we also offer

a heart-felt welcome, and confess that our sense of our incompetence to perform the task we have undertaken, is not lessened by the confidence in us they manifest in returning to these class-rooms. Such confidence shall stimulate us to do our best.

Before proceeding to make any observations upon the course of study you are about beginning, a few remarks upon the preliminary qualifications required of the medical student may not be out of place.

As far back as 1847, the qualifications required from a person about to commence the Study of Medicine in Lower Canada, were, "a good moral character, and a competent knowledge of Latin, History, Geography, Mathematics and Natural Philosophy," to which were added in 1850 "a general knowledge of the French and English languages."

In 1866, the Medical Council of Ontario, which had been incorporated in 1865, adopted the Matriculation examination recommended by the General Medical Council of Great Britain, which although not so comprehensive as that demanded by the laws of this Province, yet was more explicit, and the examination having been committed to one competent person, not directly connected with any Medical School, was a very important improvement upon our Lower Canada practice, and was at once adopted, and has been ever since carried out by this University. And let it be remarked *en passant*, that to the Canadian Medical Schools belongs the honour of having adopted a standard of preliminary education recommended by the Medical Council of Great Britain, which has not as yet been generally accepted and enforced by the teaching and examining bodies of the mother country.

About to enter then upon the study of Medicine, I assume that you have all passed the matriculation examination, which marks the beginning of the four years you are legally required to spend in its pursuit. The training of the mental faculties involved in obtaining a liberal education, forms the best preparation possible for one

intending to acquire a knowledge of the many and various branches of learning that compose the Medical curriculum. But while it may be admitted, that the study of the dead languages is as competent to impart mental training as the study of Mathematics and Natural Science, it may be fairly urged that much of the time that is usually spent upon Latin and Greek, might well be given, at least by youths intended for the Medical profession, to a more thorough study of Euclid, Algebra, Physics and Chemistry.

While the accuracy and felicity of expression secured by a classical training, is of extreme importance to members of the pulpit and the bar, the habits of severe reasoning and careful observation produced by the study of Mathematics and Natural Science are of primary importance to the members of our profession, the subjects of whose investigations demand above all others the exercise of the reasoning and observing faculties. Now while more or less attention is given to the various departments of Mathematics in the educational establishments of this country, the subjects of Natural Philosophy and Chemistry are seldom sufficiently insisted upon as important branches of general education ; yet I am convinced that in the case of youths preparing for the study of Medicine, those subjects should form an important part of their preliminary training. So numerous and comprehensive are the purely medical subjects which the student of medicine must learn, that it is improvident and unwise to defer the study of Physics and Chemistry till the student, having passed his examination in the preliminary subjects of general education, begins his professional training.

In corroboration of these views, I am pleased to be able to adduce the following observations of Dr. Huxley, than whom upon such a subject perhaps few are more competent to speak authoritatively :—" The great step towards a thorough medical education is to insist upon the teaching of the elements of the physical sciences in all schools, so that medical students shall not go up to the Medical

Colleges utterly ignorant of that with which they have to deal ; to insist on the elements of Chemistry, the elements of Botany, and the elements of Physics being taught in our ordinary and common schools, so that there shall be some preparation for the discipline of Medical Colleges."

Passing now to the subjects of the Medical Curriculum, which are to form the subject matter of your work for the next four years, these are divided into *primary and final.* The former include Anatomy, Physiology, Chemistry, Materia-medica and Botany, and are correctly called *primary*, not only that in the order of things an acquaintance with them must precede an intelligent study of the final subjects, but for the higher reason that a broad and deep acquaintance with these primary subjects forms the securest foundation upon which to erect the superstructure of the medical art.

Anatomy, which deals with the structure or organisation of the body and which is admitted to be the *basis* of medical education, should occupy a large portion of your time during the first two years of your pupilage. While to many students it forms a subject of much interest and great curiosity, to many more it appears a mere mass of dry details and unconnected facts. Now, in my opinion, this unfavourable view of anatomy arises mainly from persons attempting to learn the subject from lectures and books, instead of in the dissecting room from the human body itself, where alone it can be learned. You are fortunate in possessing the means of thus acquiring a knowledge of the structure of the human body, for although 300 years B.C. anatomy was taught, probably for the first time by Herophilus, from dissection of the human body, yet six centuries later Galen chiefly used apes. and it was not until after Mondino in the fourteenth century of the christian era had published his treatise upon anatomy from actual dissections of the human cadaver, that at every University, *one* or *two* human bodies were opened every year. Indeed for many centuries the church interdicted

the use of human subjects in the study of anatomy. Yet so essential is anatomical science to medicine that we find Galen speaking of a work on anatamy as "the most beautiful hymn which man can chant in honor of his Creator."

Closely allied to the knowledge of form, size, structure and relative position of the component parts of the body conveyed by the pursuit of anatomy, is that knowledge of functions and use of those parts taught by Physiology.

So closely related to anatomy is physiology that they should always be studied together; the student will find the dry details of descriptive anatomy impressed upon the memory and made interesting by a consideration of the offices, and uses of the several parts of the organism; and on the other hand, a close investigation into the anatomical form and structure of the organs will materially assist in making known their function.

Physiology has claims also upon your attention not merely as the helpmate and complement of anatomy, but as an essential qualification of the physician. It is scarcely needful to state that you must be acquainted with the functions of the various organs, with the laws which regulate their working and with their vital manifestations in health, if you would comprehend, detect and rectify the morbid conditions of the body in disease.

It may be quite true that as yet physiology has not given us scientific information upon the modi-operandi of the remedies we employ, and that in therapeutics clinical experience rather than physiological theory must be our guide. But pathology, diagnosis, and hygiene are very largely indebted to physiology for its valuable assistance, and even when it fails to make positive additions to the science or art of medicine it will often protect against erroneous views and practices. This indirect influence of physiological knowledge is not, I think, sufficiently appreciated, and I am convinced that every advance made in physiology will benefit some department of medicine. I have not time to dwell upon that department of physiology called *histology*, or gen-

eral anatomy which combines the microscopic anatomy with the physiology of the *tissues* of the body, and will venture only the remark that however valuable as a preparation for the study of *morbid* anatomy, there is a danger that the great development which histology has attained of late years may lead to an undue attention being given by the student to that subject, and to a consequent slighting if not neglect of the much more important topic, physiology proper.

Another of the fundamental subjects that must receive your earnest attention during your primary years is *Chemistry*. While some knowledge of Chemistry is assumed to be the possession of every man of liberal education in the present day, and is necessary to a comprehension of what is going on in the natural world in which we live, and in the practical working world in which we act; it is indispensable to the student of medicine. Chemical agency plays an important part in many of the processes of the living body, notably in those involved in respiration and digestion, in the production of animal heat, and even of the secretions and excretions; and the application of chemistry to physiology (Zoo-chemistry) is a modern addition to the subjects claiming your attention, and from which some valuable contributions to practical medicine have been derived. Chemical knowledge too will largely avail in the study of Materia Medica and of Toxicology, indeed it is indispensable to a knowledge of the methods of preparing and prescribing medicines, and of detecting poisons, and administering their antidotes. Chemistry is one also of those subjects which educate and develop the observing faculties, the correct employment of which distinguishes the able physician. It is now taught in this school both theoretically and practically, and I would advise you to take the *practical* course during the summer succeeding your first course of systematic lectures upon the same subject, instead of during your final session, as has hitherto been the custom.

The other primary branch to be glanced at is *Materia Medica*, the object of which is to make you acquainted with the remedies you are to employ in the art of Medicine. In this country two six months courses are devoted to its study, no doubt because it is intended to teach chiefly the therapeutic uses of drugs, rather than their methods of preparation and compounding, which more properly appertain to pharmacy. The importance of therapeutics to the student will further appear in the circumstance that their consideration forms also a large proportion of the duties of the lecturers upon Surgery and Medicine. Thanks to a better knowledge of the natural course of many diseases, and to greater accuracy in their recognition, we know more about the capabilities of our remedies than was known only a few years ago. The modi operandi of medicines are not well understood, and probably cannot be until physiology and pathology have attained to the rank of sciences; but very much is known about the real properties of medicines and respecting their uniform action upon healthy structure and function; (physioligical action) and with these you should become familiar, as they constitute the only standard with which to compare the action of remedies upon morbid structure and function (therapeutical action.) Allow me also to commend to your special attention a department of therapeutics that is now at length receiving the imprimatur of authority and experience by the employment of the faradaic and the galvanic current in the treatment of disease. A very dangerous agent in the hands of unlearned persons, electricity when employed by a physician instructed in its application, becomes a very useful and a safe remedy.

The four subjects just considered, constitute the very foundation of medical science and art; and as a further reason why you should thoroughly master them in your pupilage, let me add that once you have become practitioners you will not again have an opportunity of studying anatomy and chemistry practically, and will not have the time

nor most likely the inclination to study any of the four subjects at all. These subjects form also the topics of the primary examination which you may pass at the end of your second or third session.

The *final* examination deals with the three great practical branches, in the exercise of which you are to spend your lives, viz : Midwifery, Surgery and Medicine, and with a minor, and, compared with these, to the medical student a much less important subject—Forensic medicine.

In this country, where most medical men are general practitioners, it is scarcely necessary to advise that an equal attention be paid to Medicine, Surgery and Midwifery, and I will rather offer some remarks upon the methods of acquiring a knowledge of those subjects. These are by attending systematic lectures and reading books upon them, and by studying them clinically.

The professors of the several branches will bring before you a systematic but condensed account of the more important subjects appertaining to Medicine, Surgery and Midwifery ; and while attending the lectures upon those subjects you will do well to take careful notes, which, while compelling your attention during the delivery of the lectures, will serve you in your preparation for the weekly and the final examinations. Indeed, I have been told by many a young practitioner that he has often found his notes of lectures of great assistance to him in the diagnosis and treatment of difficult or obscure cases. These notes may be supplemented by the careful study of some good handbook, which your teachers will gladly tell you of.

But it is in the hospitals that these great subjects can be most profitably studied.

The credit of having first established hospitals is due to the monks—and *one* of the first, if not *the* first, of these houses was built by Fabiola, a Roman lady, in the 5th century. Intended at first as mere receptacles for the sick, after a time they became the schools at which students of medicine acquired a practical knowledge of their art.

The teaching given in hospitals is called clinical or bedside teaching, and is as necessary to the education of a physician as the laboratory is to the instruction of a chemist. or the workshop to the carpenter's apprentice. Indeed, some authorities would substitute clinical teaching for systematic lectures, but both have their respective uses and advantages.

In the hospital the clinical teacher takes his pupils to the bedside of a patient, and examines him in their presence. In a methodical manner he obtains from the patient a history of his former health and ailments, and in many cases inquires into the family history also, to learn the tendencies to disease, longevity, etc., inherited by the invalid. He then ascertains the present state of the patient, by investigating the symptoms and signs furnished by the several organs and functions of the body, and in many instances by examining the secretions also; he then announces the diagnosis, and explains his reasons for arriving at it—and lastly prescribes a treatment.

While thus *demonstrating* the method of investigating disease, the teacher calls upon the students in turn to employ, and thus educate their own senses of seeing, feeling and hearing. While dwelling upon the cardinal symptoms, he points out those which are of trivial significance, or of unusual occurrence, or of pathognomonic import, and finally employs the case as a typical illustration of the disease he recognizes it as, or, as more frequently happens, adduces it to show that the precise descriptions of disease contained in systematic treatises, are seldom realized at the bed side. After the student has been more or less prepared in this way, he is called upon to exercise his own powers of observation and analysis by reporting cases entrusted to him, an exercise in medicine or surgery analogous to dissecting, for the purpose of learning anatomy. Be sure that you avail yourselves of every opportunity of so doing.

From what has just been said, you will perceive that while in the lecture room you obtain complete descriptions —more or less faithful pictures—of disease; in the hospital, you have an opportunity of seeing, and as it were handling disease. Just as your knowledge of the mechanism and working of a steam engine would be more complete and lasting, if having read, or listened to an accurate description of the machine, you should afterwards examine one both at rest and while in operation, so will the studying of disease in the hospital supplement the knowledge acquired from systematic lectures,, and render it more full and lasting.

Then there are certain subjects of the highest value, that can be learned only at the bed side of the sick, and some of them with difficulty even there, without the assistance of a teacher— such as bleeding, cupping, bandaging, dressing wounds, the application of splints, and other surgical appliances; the exploration of the heart and lungs by auscultation, percussion, etc., of the eye through the medium of the ophthalmiscope, of the larynx by means of the larynxscope, and so on. See to it that while *students* you become familiar with these mechanical aids, for when *graduates* practising your profession, you will not have teachers to instruct you in their use, nor wards in which to attempt to learn by yourselves how to employ them. And, moreover, it will be especially at the outset of your career, before you can have by long experience obtained an almost instinctive knowledge of disease, that you will need the assistance of these modern instruments in the detection and diagnosis of disease.

It is while attending the hospital, also, that you may not only learn the method of making pathological examinations of the dead body, but acquire an acquaintance with *morbid* anatomy, and learn to recognise the alterations of structure effected by disecse. The clinical teacher will, on the death of a patient, take his class into the "post-mortem room" and carefully open and inspect the organ said during life to

have been the seat of disease, and the other organs as well; and will then demonstrate the correctness of his diagnosis and the grounds of it, or point out the incorrectness of it and from his failure teach a lesson that may be of life-long value to you as well as to him. The subject of *Morbid Anatomy* will also be systematically taught by the Professors of Surgery and Medicine in connexion with the affections of the several organs, and let me now, once for all, bespeak for it your earnest attention. The detection and the diagnosis of disease at the bedside depends largely upon an accurate knowledge of the alterations of structure induced by disease; indeed such knowledge forms an essential part of the history of very many affections. Its study teaches the pathologist that what may seem to be a disease of a single organ, is frequently a more general affection implicating many organs—that some widely distributed lesions, such as malignant growths, abscesses, spots of softening, of gangrene, etc., may have had a local origin in some part of the body far removed from the sites of the secondary lesions—that, as a general rule, idiopathic disease, *i. e.*, disease occurring in the absence of predisposition or local violence, is very rare in healthy bodies—that the tissues themselves and not the constitution only of the patient largely determine the form of the disease and the course it shall run; for example, cancer when it originates in the brain testis or liver, is usually medullary; in the mamma it is oftener scirrhus; in the tongue, lip or gullet usually epithelial—in healthy persons inflammation of the serous membranes generally produces lymph, of mucous membranes, pus; of the liver or lungs very rarely pus—and, time permitting, very many more important uses of a knowledge of pathological anatomy could be shown.

The only other inducement to a close attendance in the hospital that I will mention is, that you may there learn practically the therapeutic uses and value of drugs, and the influence they exercise upon morbid action. While watch-

ing daily the effects of various drugs taken by forty to fifty patients, the subjects of various morbid states, you will gradually grow familiar with their properties, with their appropriate doses and uses, and with the modifying influence exerted upon their operation by age, habits, idiosyncrasy, and disease according to its nature, severity and stage—you will at the same time come to form a correct estimate of the powers of remedies in controlling morbid action, and be thus qualified to employ them not only with more skill and success, but with more confidence or at least with more knowledge and humility.

Such then are the several more important branches with which you must be familiarized before obtaining a degree in Medicine, and let me recommend you to learn them all thoroughly, so necessary are they to the man who would practise in all the departments of our art, who would be a general practitioner, which is the position of nearly all medical men in this country.

After you have begun practise will be the suitable time in which to cultivate any special aptitude you may have, whether it be for diseases of the eye, or ear, lungs or kidney, or for surgery, medicine or midwifery. Even specialists should be thoroughly and broadly instructed in the general principles of pathology and therapeutics.

Perhaps no other profession presents so many distinct departments of science for the acquisition of its followers as ours, and for this reason let your entire four years be continuously devoted to learn them. The summers, except for the first few weeks after the close of the winter session, which should be used as holidays, ought to be employed in systematic work. Several hours of every day during the summer shouid be spent at the bed side in close observation of the sick, and practical Chemistry, practical Midwifery and the lectures upon Hygiene and Sanitary Medicine should be attended at the same season of the year ; and you will derive great benefit from the expenditure of a couple of hours a day, for three months in learning

practical pharmacy in the hospital under the direction of Mr. Cameron, the Apothecary of the institution. It may be the only opportunity open to some of you to become familiar with the preparing and compounding of medicines.

You should also avail of the comparative leisure of the summer months to supply any deficiencies of your preliminary education, and I would venture to advise you especially to work at Natural Philosophy, French and German.

Gentlemen you are entering upon the study of medicine, at a favourable period in its history. I am not alluding to the repeal of the laws of Theodoric which were in operation till the eleventh century, according to which a physician forfeited his *fee* if his patient died, and the surgeon was delivered over to the friends to be dealt with at their pleasure if his patient being a gentleman should succumb after an operation—nor to the removal by the Pope in 1452 of the edict which had condemned physicians to a life of single blessedness—nor even to the salutary direct and indirect influence upon medical science exercised by the general diffusion of knowledge in the present day as compared with the withering influence exerted by the general ignorance of Europe from the seventh to the twelfth century, when it was rare to find a layman who could read or write. I allude rather to the temper which now pervades medicine in common with other sciences, and to the great additions to pathology and therapeutics which have been made of late years. No doubt it is as true to day, as ever it was, that

> ——"Every worm beneath the moon
> Draws different threads, and late and soon
> Spins, toiling out his *own* cocoon."

But at no period have men been more severe in dissecting, unspinning, even destroying, not alone the theories spun by others, but their "own cocoons" also. The "quod semper, quod ubique" sentiment of Theologians has no place amongst modern physicians. Mere authority and opinion, however fossilized by age, have comparatively

little weight. Accurate observation, careful experiment and exhaustive comparison are held to be the only reliable basis of safe induction in scientific medicine.

I incline to believe that one of the characteristics of the age is a steady and continued progress in all departments of medicine rather than sudden and fitful conquests of scientific discovery—and such method of advancement is more hopeful and desirable than the more brilliant but fitful flashings of great truths from the mind of genius. It would require several lectures to describe the numerous important additions made to medical science and art since I sat where you now do, and I will only allude to a few of them.

Perhaps the most important of them, because of its universal application, is the employment of the thermometer at the bedside as an instrument affording the most reliable information as to the existence, nature, course, and probable issue of disease, and frequently serving as a reliable guide in its treatment. This is the greatest advance made in clinical science since the days of Laennec, and should place Traube's name along with his and Hunter's.

The gain to pathology arising out of the discovery and elucidation of embolism and thrombosis by Virchow and our own Kirkes, cannot be estimated. The process of embolism has explained the sudden occurrence of many cases of paralysis, blindness, embarrassment of the lungs, heart, and other viscera; of gangrene of the members, and of multiple abscesses. It has elucidated the nature of softening of the brain, the mode of propagation of cancerous and other growths to remote parts; and it has been suggested but not proved to be the cause of the delirium of fever, the ataxic movements and failing power of chorea, the cause of hypostatic pneumonia, and of some cases of uræmia.

The recent doctrines of Virchow, which made the cell elements of the tissues the seat *of* and the main agents *in* morbid action, although carried too far by its author, has

done good service, by replacing the older humoral pathology, which referred all morbid action to alterations which had begun in the fluids of the body, and by preparing pathologists for the present doctrines, which recognize the essential operation and co-operation of the tissue elements, and the blood and other fluids in diseased processes.

Within the period alluded to, many important diseases that had escaped recognition or been misinterpreted, have been carefully described, as for example:—Addison's & Hodgkin's disease, Leucocythemia, Trichinosis, Visceral Syphilis, Cruveilhier's disease, Locomotor Ataxia, Pseudo-hypertrophic Paralysis, and several others. Two instruments have been furnished the practitioner which have revealed to his actual sight many affections of the eye and wind pipe, whose existence had not been previously known, and others which although known, could not be positively made out.

The inoculation experiments initiated by Villemin in 1865, and repeated in various ways by Andrew Clark, Burdon Sanderson, Wilson Fox, Waldenburg and others, have opened up a question than which not one in pathology is of greater importance. While I am not convinced that these experiments prove that tuberculous disease results from the mere absorption of the products of inflammation or even of caseous pus, and that it differs from Pyæmia mainly in the greater activity of the local alterations, as shown in the suppurating and sloughing tendencies, and in the more severe constitutional disturbances observed in the latter, I admit that it is not easy to overthrow the reasoning based upon those experiments, and that they are splendid illustrations of the active truth-seeking spirit of the age.

Indirectly arising out of these inoculation experiments, we appear to be on the verge of some valuable discovery in pathology. Quite recently Dr. Burdon Sanderson while inoculating animals with inflammatory products, serum

pus, etc., and even with pure chemical irritants, found that the exudation formed by the secondary inflammation thus induced, as well as the blood of the animals contained extremely minute organic bodies—rod-like in shape—called *bacteria*, the office of which is, he believes to *carry* the infection contagium—or septic matter from one diseased part to another. Now if this be true, and if as he thinks the *bacteria* are essential to the conveyance of infecting material in Pyæmia, there arises the hope that we may yet discover some agent which taken into the system may destroy these contagion carriers, much after the manner in which we kill the vegetable fungi growing upon the skin in favus and pityriasis.

In connection with this new subject of scientific interest the older students present, as well as my colleagues, will be pleased to hear that Dr. Osler, who graduated here in 1872, has just made a discovery of great interest, and that promises well for the future of our young countryman.

He has discovered in his own blood, while in health, large and small masses composed of minute corpuscles agglutinated together. These had been met with by others, but Dr. Osler has discovered what had not hitherto been known, the actual development of bacteria from these masses when a drop of blood is mixed with a weak solution ($\frac{3}{4}$ per cent.) of common salt and maintained at the temperature of the body.

I wish that some friend of this University would endow a Chair of Physiological and Pathological Histology, and that our young friend might be invited to accept the appointment and devote himself solely to the cultivation of his favorite subject, and at the same time bring honor to himself and to Canada.

Time will not permit me to adduce illustrations of the advances made of late in Surgery, Obstetrics, Therapeutics, and indeed in most of the departments of medicine. But before concluding with a few words of counsel, there is one

topic germane to the present subject upon which a few remarks may not be out of place.

Looming up in the future appear to me to be two things that will render the practice of medicine more successful and therefore more agreeable. I refer to the special education of women as nurses, and to the establishment of the department of state medicine with its special qualifications My time will only permit of a few observations upon the former subject.

You are aware that for some time past the question of the education of women for the profession of medicine has been much discussed. Holding that the practice of medicine is not the appropriate sphere of woman, I yet believe there is a very closely allied department of honorable, useful and scientific labour, in connection with the management of the sick and the prevention of disease, for which women, not men, are especially suited by natural endowment—viz: as educated and trained nurses. The improved training now given nurses at the useful establishments lately instituted in Germany and England, does not supply the qualifications that appear to be necessary, but a more comprehensive education and training that would elevate nursing to the rank of a scientific art like our own, and would secure to its members the social position and material rewards that belong, and are generally given to those who combine a scientific education with a useful calling Such an art would in my view imply a liberal preliminary education at least equal to that now required of the medical student, assigning however a first place to natural science, and a lower one to the classics. And 2nd a professional education extending over three full years and embracing the following scheme of subjects:—Anatomy, Physiology, Chemistry, Materia Medica, Pharmacy, Dietetics, Hygiene and Clinical instruction in nursing the sick and wounded, in dressing wounds and applying splints, etc. Such nurses to receive a diploma upon examination, entitling them to practice the art of nursing and to charge

fees in rates proportionate to our own. Such a body of trained nurses would supply the greatest want we have as physicians, and would open up a career of usefulness and honourable employment to our sisters, who would then be not alone the helpmates, but the *complementa* of the medical profession.

Gentlemen,—Many of you, no doubt, feel dismayed at the contemplation of the work laid out for you. But take courage. Set yourselves quietly, honestly and hopefully to the work, and you will gradually become familiar with the many new terms that may at first perplex you. You will soon perceive order and system where now confusion and chaos obtain, and will have before the end of the first session, gained confidence in your ability to overcome the difficulties in your path, as others have done. As a rule, the first session determines the future standing of the student. Strive, therefore, during it, to form habits of punctuality, industry and steadiness. Do not lose the advantage of a good start, or you will regret it every succeeding year.

In addition to taking careful notes of the lectures, procure, under the advice of your teachers, the best text-book possible upon each subject, and master it. It is an old saying with a good foundation, "Beware of the man of one book." Your motto should be "Multum, non multa." From the very first week of your attendance prepare thoroughly for the weekly "grinds," as the students elect to call them. This will establish industrious habits, strengthen the memory, produce readiness and confidence in answering, and impress the subjects studied more permanently upon the mind. Avoid attending too many lectures at the same time; rather distribute the various subjects equally over the four years; and take care to employ the summer months as systematically and industriously as you do the winter.

Seek early to acquire manual dexterity in the dissecting-room, laboratory and wards; and educate your senses and

observing faculties by a diligent and regular attendance at the bedside in the hospital. (But I have already spoken upon the last named subject.)

Take care of your health. Many a promising man breaks down by over-application to study and the neglect of hygienic laws. Make it a rule to study only so many hours in the twenty-four, and to take out-of-door exercise from one to two hours every day. Mental work done when mind and body are fagged is indifferently done, and costs more than it is worth It is not easy to lay down any rule on this head ; but every person may soon find out for himself how much time he can devote to study short of mental fatigue.

Cultivate those moral and religious principles, habits and feelings, which will lead you to prefer virtue and self denial to popularity and self gratification, and conduct yourselves with sobriety, modesty and correctness, becoming men aspiring to the possession of an influence and knowledge which in the opinion of an eminent heathen elevate their possessor to an equality with the gods.

Beware while devoting so much time and thought to the study of the physical sciences that you do not insensibly glide into the fashionable spirit of unbelief of the day, in which natural laws are regarded as self originated—the existence of a Creator questioned or ignored—the intelligent superintendence of a Divine mind in the universe, and over the affairs of men doubted or denied—and nature's laws made to replace nature's God. Because in your investigations of the laws of matter and force, you are permitted to hold nothing as truth that can not be demonstrated, or that appears to be opposed to known physical laws, do not therefore conclude that the great mysteries of Revelation are unworthy of credence, and that there can be no relationship for man beyond his present existence.

> Wonder ! but—for we cannot comprehend,
> Dare not to doubt. Man, know thyself! and know
> That, being what thou art, it must be so.

We creatures are, and it were to transcend
The limits of our being, and ascend
Above the Infinite, if we could show
All that He is, and how things from Him flow.
Things and their laws by man are grasped and kenn'd,
But creatures must no more ; and nature's *must*
Is reason's choice ; for could we all reveal
Of God and acts creative, doubt were just.—
Were these conceivable, they were not real,
Here, ignorance man's sphere of being suits
'Tis knowledge self, or of her richest fruits.

Then rest here brother ! and within the veil
Boldly thine anchor cast."

HOSPITAL REPORTS.

Sept. 8th.—A most interesting case of general paralysis presented itself at the out room to-day. The subject was a boy of three years, apparently well nourished ; parents both healthy and free from all hereditary disease of a nervous character. The mother positively states that when bearing this (the third) child in the seventh month she received a blow from a heavy axe handle in the back of the head, which stunned her and laid her up for some days. When the child was born at the full term, and after a natural labor, a curious conformation of the head was noticed, the occipital portion being regularly indented in the position of the protuberance as ordinarily observed. Otherwise the child was pronounced healthy in every particular. As it grew and the bones of the head became more consolidated, the indentation remained, but he teethed late, and did not gain that power in his limbs to enable him to walk, that is expected in a child when it reaches the eighteenth month or thereabouts. At present the limbs appear comparatively strong, but there is an evident

want of co-ordination in the movements, so that when he is put down to walk, his feet move in almost precisely the same fashion as a person suffering from locomotor ataxy, there being power without harmony of action in the muscles. When you offer him any object which interests him, the hand will move all round it or will fall short of catching it, and his want of success in securing it evidently annoys him exceedingly. Occasionally the movements are somewhat choreic in character. There is paralysis of the sphincters, and he is yet unable to articulate.

This case, if the history can be credited, is certainly unique as regards the connection between the external injury to the mother and the effect on the child in utero. From the symptoms as well as the position of the malformation, one would naturally suspect either entire or partial absence of the cerebellum, or some condition present in it that modifies its functions.

Sept. 16th.—Another street car accident was admitted this morning. It appears the man, aged about 45, by the way a French Canadian, and also from Quebec, visiting the Exhibition, was riding on the front platform of a thronged car, when he was either pushed off or slipped and fell, the car striking him as it passed, and probably the wheel passed over his left arm. He was found to have sustained the following injuries: A triangular piece of the scalp, of the size of the palm of a large hand, covering the posterior and lateral region of the head, was completely raised from the skull and hung loosely by its attachment. There was considerable bleeding from branches of the occipital artery. On the inner side of the upper left arm, about the middle third, a piece of integument two inches square, with cellular tissue attached, had been entirely removed, leaving the muscles bare to that extent. But the most extensive and dangerous injury remained to be examined. On the flexor side of the arm, about the upper third, was a jagged wound about four inches in length and one inch at its widest part, and

through which protruded the upper fragment of the broken radius. The ulna was also fractured. A large portion of one of the flexor muscles occupied the greater part of the opening, which rendered the reduction of the fracture most difficult. As to *treatment*: The wound in scalp was brought into position by four interrupted wire sutures; the wounds in the arm were injected with a 1 × 20 solution of carbolic acid, and the edges brought together as much as practicable; dressings of weak carbolic lotion, with a splint to the front of the arm, completed the treatment.

There are in all some ten cases of typhoid fever in the wards at present. The majority of them are running an ordinary mild course, but peculiarities have presented themselves in at least three that are worthy of mention.

1*st.*—*Under Dr. McCallum.*—Here the fever was on the decrease on the 17th day, when he began to complain of pain in his right arm and a little swelling was noticed about the elbow. In twelve hours, however, the entire member from the upper arm to the tips of the fingers was enormously swollen. The condition was by this time recognized as *phlegmasia dolens;* the vein could be readily felt as a firm cord in the axillary and brachial regions. The day following the other arm became similarly affected. He suffered also great pain in the right leg for some hours, and the vein had a cord-like feel, but no swelling occurred. The arms were kept swathed in cotton wool covered with oil silk and a bandage, and by the end of the fourth day the œdema had almost entirely disappeared. The case was now progressing rapidly towards a favorable termination, and it was thought he might rise in a day or two, when suddenly another complication made its appearance in the shape of a periosteal node on the right femur about the middle and on the inner side of the shaft. This was treated by the local application of the simple tincture of iodine, and internally small doses of the potash iodide. Before the inflammation subsided the node had reached the size of a goose's egg. It took four weeks to dissipate it.

2nd Case.—Under Dr. McCallum.—This was a very severe case in a lad of 17 years. He had, during the second week, almost uncontrollable diarrhœa, and his life was despaired of for three or four days. However, under astringents and abundance of alcoholic stimulants, he pulled through, But the interesting point was a peculiar *aphasic* condition which became marked as the fever diminished. At times he would misname familiar things, and again use the affirmative in place of the negative, as well as indicate by his behaviour many of the other less marked symptoms of that hitherto unexplained condition known as aphasia. At other times, again, he would exhibit an obstinate taciturnity, which it was feared might be the index of some organic change insidiously going on in the brain. This condition, however, gradually disappeared as convalescence advanced, until at the time of his discharge, about a month after it was first noticed, there was nothing of it remaining.

There is a third case at present under Dr. McCallum's care. which serves to illustrate the immense benefit to be derived from the judicious employment of alcoholic stimulants in typhoid fever. The patient is an English emigrant who, at the time she was attacked, was still suffering from the effects of the sea-voyage, and, consequently, little fitted to withstand an attack of typhoid fever. On the evening of the day of admission, which was the fifth of the fever, the temperature was $104\frac{3}{4}$, and the pulse 124; there was diarrhœa; tongue already dry; great gastric disturbance as evidenced by constant nausea and occasional vomiting; delirium at night from the first; sleep at all times restless, and of that moaning kind so often seen in febrile conditions. She was ordered the ordinary fever mixture of the hospital, (whose chief ingredients are hydrochloric acid and chlorate of potash), with abundance of milk and a pint of beef tea in the twenty-four hours. For the diarrhœa, the compound powder of chalk with opium was given in doses of twenty grains every fourth hour. On

the second day after admission the more serious symptoms being unabated, and the pulse, and tongue of that character indicating stimulants, four ounces of port wine were ordered to be given during the twenty-four hours. About the eleventh day of the fever the temperature ranged from 103° in the morning to 105½° at night; pulse 140 to 146; weak and compressible; pupils dilated; few if any lucid moments; at times breathing of a stertorous character. Dr. McCallum now despaired of saving his patient, but as a *dernier resort* ordered stimulants almost without limit. Eight ounces of brandy were substituted for the wine, and even this was to be added to if necessary, before his visit on the following day. In twenty hours a pint of brandy had been consumed, either made up with water hot and cold, or given at times in milk or beef tea as the ingenuity of the nurse might suggest, and the effect even now was marvellous. The chart shows on the evening of of the 13th day of the fever, a temperature of 103¼, and on the morning following it had fallen to 100¾, pulse 116; mental condition much clearer; diarrhœa entirely abated; condition most promising. It it unnecessary to follow the case further than simply to state that this process of stimulation was continued uninterruptedly for five days, after which the brandy was gradually diminished in quantity; that the symptons once so alarming were regularly beaten back by the stronger ethylic foe; and that the patient, with the exception of a trifling relapse is making a good recovery.

This case is not, however, unique in the practice of this hospital. It is merely mentioned here because it happens to occur at this time. Scores of instances might every year be cited to illustrate as forcibly as the above, the sometimes marvellous effects of well-timed stimulation in this and other fevers, and the various forms of blood contamination; but the utility of such a procedure is questionable. There are those in the profession, and fortunately for suffering humanity these are in the majority, both in

number and influence, who require no proof beyond their own experience, of the good effects of alcoholic stimulation in disease. But there are a few, and far too many at that, who are either without experience, never having had the more formidable cases to treat, or who, experienced, are the victims of a whim, which, sad to relate, is too often the fittest term to apply to their prejudice. With such, even argument, ever so strong, is as so many empty words. To say that they would sacrifice life to maintain their false position, knowing that position to be false, is not in all cases true, but that lives are lost for the want of stimulation, is known to be as true as gospel.

Case of Fracture of the Femur, from a jall from a window. Rupture of the Diaphragm. A knuckle of Liver strangulated. Death. Autopsy. Under the care of Dr. Drake. Reported by Mr. J. C. CAMERON, House Apothecary, Montreal General Hospital.

S. H., aged 26, admitted to Montreal General Hospital early on the morning of March 18th, 1873. A fine, stout, hearty-looking young man, by occupation a commercial traveller, was boarding at the St. James Hotel, his room facing Bonaventure Street, situated in the story just above the entrance to the Billiard Room. Being aroused by the alarm of fire, and partially suffocated by the smoke, he seemed to lose all self-possession and presence of mind, and is described by an eye witness as acting more like a madman than a rational being. After vainly endeavoring to escape through the passages, he became desperate, smashed out the window, and attempted to reach the ground by dropping from sill to sill, catching them with his hands. During this insane endeavor, his hold slipped, and he fell heavily, his thigh striking the large iron bar which supported the sign of the billiard room. This completely broke his fall, and he rolled off upon the icy pavement below.

When brought to the Hospital, he appeared to be suffering intense agony ; great restlessness ; general surface cold, and covered with a profuse, clammy perspiration ; pulse small and weak ; pupils dilated ; low muttering delirium, from which, however, he could be roused with difficulty ; great dyspnœa ; could not remain recumbent, but required to be kept propped up ; called loudly for air, wanted the windows thrown open constantly ; vomited a large quantity of blood, and seemed to be suffering severely from shock. Had all the appearance of a man who has lost a large quantity of blood, and it was supposed that, in all probability, some severe internal injury existed, accompanied by considerable hemorrhage. Upon examination it was found that his thigh was broken about the junction of the upper and middle thirds. This was at once put up, and extension applied in the usual manner. Some bruises also existed about the head, but nothing serious. Pulv. opii gr. i was administered every third hour. Beef tea and brandy were liberally given. Notwithstanding all efforts, however, he gradually sank. The delirium became less noisy, he grew more quiet and sleepy, and at last died at 11 a.m.

Autopsy—20 hours after death.

Rigor mortis well marked.

On opening the chest, no signs of hemorrhage were seen. All the organs were much congested. Upon closer examination, the diaphragm was found to be ruptured, and a portion of the liver firmly grasped by the edges of the fissure, was seen protruding into the pleural cavity. The part thus constricted was a portion of the convex surface of the right lobe, about the size of a goose's egg, as broad at the apex as at the base, gorged with blood, bleeding freely when cut into, although no previous hemorrhage had occurred. The rent in the diaphragm was lateral, about one inch and a half long, situated more anteriorly than posteriorly. The circulation in the liver was greatly impeded, and of course the general circulation as well.

There was no rupture of either lung, nor hemorrhage into pleural or peritoneal cavities.

The patient never rallied from the shock; and from that he died. The rupture must have been due to indirect violence when he fell upon the iron bar; the force with which he struck must have been very great, for he was a very heavy man, and the thick bar was considerably bent by the blow.

The great dispnœa was no doubt due to the perforation of the pleural cavity, and also to the motion of the diaphragm being much impeded and restricted by the knuckle of liver so tightly grasped in the rent.

Case of Hysterical Contraction of both knee joints. Recovery under the care Dr. MacCallum. Reported by Mr. R. MacDonnell.

Mary Costen, aged 13, was admitted to the Montreal General Hospital on the 27th June, 1873.

Is an orphan, brought up in a convent at Laprairie. Up to last December, she had enjoyed good health, but was constantly confined within doors, and took but little exercise. Her menses had first appeared at the age of twelve, but had always been very irregular. In December last she had variola in a slight degree, and during this attack was seized with profuse menstrual discharge. When convalescing from this illness, both legs gradually became flexed on the thighs and finally this contraction grew so strong that she found herself quite unable to stand erect.

On admission, the legs could not be straightened at all, the flexor tendons being extremely tense, although when she was asleep they became slightly relaxed. On administering chloroform, however, the legs immediately became supple, and could be flexed and extended at will.

Dr. MacCallum prescribed;

R. Ferri el Ammon. Cit. gr. xlviii.
Tr. Valer. Ammon. 3vi.
Aquæ ad. 3vi.

A tablespoonful three times a day.

July 7th.—Chloroform was administered, and splints applied to both legs, so as to keep them permanently extended.

July 8th.—Patient quiet, but complaing of pains in the knees and of want of sleep.

July 15.—Stated that she now felt no pain whatever, and expressed a desire to have the splints removed.

July 19,—Splints removed without any inclination on the patient's part to draw the limbs up again.

July 21st.—No stiffness whatever in the knee joints, the limbs being capable of voluntary extension or flexion.

Patient attempted to walk, but from weakness was unable to do so.

July 22nd.—Still unable to walk. The threat of a cold water douche seemed, however, to render her more anxious to accelerate her cure.

July 23rd.—Can walk with ease the length of the ward; health and strength improving.

July 28th.—Walking very much improved, as well as general health,

Aug. 4th.—The patient walked out of Hospital to-day for home, as strong and well as ever.

Case of Abscess of Abdomen—Death—Autopsy—under care of Dr. Ross.

Harriet Bryson, age 41, born in England, was admitted to the Montreal General Hospital on Tuesday, the 2nd of September, 1873. She is a married woman; has had four children; has one brother living. Both her parents died of cancer — her father at the age of 62, of cancer of the liver, and her mother at 55 of cancer of the breast. She had always been rather thin and delicate, but usually in tolerably good health. Has been a hard smoker for a considerable length of time, and indulged freely in alcoholic drinks, especially brandy, till about six years ago. She then had an attack of delirium tremens, and in com-

pany with her husband went over to England where she recovered her former health, but not her intellect, her faculties having remained somewhat impaired, and are apparently defective at present. Since then she has been in the habit of using stimulants, but very moderately. About Christmas, 1871, she was delivered of a still-born child. At first all seemed to do well, but soon after she began to complain of cramps in her legs, and later of cramps in the abdomen, and a small hard cord-like tumour could be felt in the hypogastric region, but she consulted no physician and paid no attention to it, thinking that it might be due to cramps above mentioned, and that it would go away spontaneously. She has been rather feeble and sickly since then, but continued at her usual occupation till about the middle of last July, when, after a hard day's washing, she exposed herself to cold. Shortly after that having retired to bed in her usual health, she was taken through the night with severe cramps, and violent purging and vomiting. Without notifying any person of her condition she went down stairs and there remained suffering till about six o'clock on the following morning, when she was found by her husband in a state of collapse, her extremities cold and livid, and strength very much exhausted. A sense of fluctuation exists in the centre of the abdomen with marked tenderness on pressure all over the surface. She is very much emaciated, and has had amenorrhœa since the commencement of her illness. Previous to that time she had always been somewhat irregular. Her cough is more troublesome at night, and she does not rest well. Her chest was examined, but nothing abnormal could be discovered on the anterior surface, except feeble respiration posteriorly; bubbling rales were heard over the apex of both lungs, but smaller and more frequent over the right. There was no dullness on percussion. Her tongue is aphthous and slightly ulcerated. The roof of her mouth is also covered with an aphthous exudation. Her respirations are shallow, feeble, and about forty-eight per minute. Her pulse is small, compressible, and intermitting.

Her uterus is apparently quite healthy, and of the natural size. Her urine is highly acid. Specific gravity 1025, and contains no albumen. She had to be assisted up stairs. Her husband procured her a bottle of Dr. Crevier's Cholera mixture, which apparently gave her no relief. Soon after she was seized with a dry hacking cough which still continues. About the same time, in addition to the tumor already existing in the hypogastric, two others appeared in the left iliac region. The latter two, however, soon disappeared. The former continued to enlarge. At present it is of considerable size and occupies nearly a central position at the lower part of the abdomen, the slight deviation from the centre being towards the right. Its vertical diameter is about three inches, and itextends downwards from a point about half an inch below the umbilicus, leaving an interspace between it and the symphysis pubis. It is between four and a half and five inches transversely, and approaches a little nearer to the anterior superior spinous process of the right ilium than to that of the left. It has very hard edges.

Treatment ;—She was put upon milk diet, with wine 6 oz. and two raw eggs daily, and prescribed the following mixture : Acid Hydrocy., dilut ,gtt. xii. Tr. Conii, 3vi. Syr. Tolut 3i., Aq. viii. A linseed meal poultice was ordered to be applied over her abdomen.

Sept. 8th. E.—Respiration 44 per minute. Pulse 116 ; Temperature 99°. She was given a hypodermic injection, containing morph. sulph. gr. 1-8.

Sept. 9th. M.—Respiration 40 ; pulse 112 ; temperature 98 2-5 °. Rested well during night. Evening, respiration 48; pulse 120 ; temp. 100 °. Morph. sulph. gr 1-8 was injected hypodermically. Fluctuation in the tumor becoming more and more distinct.

Sept. 10th. M.—Resp. 40 ; pulse, 110 ; temp. 100. Tongue still continues aphthous. Enjoyed a good night's rest. An exploratory puncture was made into the abscess by the needle of a hypodermic syringe, and it was found to contain pus, with bubbles of air, having a very fœtid and offensive

odor. The abscess was then opened, and about three ounces of this fœtid, purulent matter removed. From a number of small dark specks which rolled out with the discharging fluid, and the offensive odor, the presence of fœcal matter was suspected.

Sept. 10. E.—Resp. 44 ; pulse 120 ; temp. 99 4-5. Tongue dry and fissured. Rested well till about midnight. Had cold chills between 7 and 8 A.M. The tumor presented slight fluctuation. The tent was removed, and about two ounces of a thick, viscid, reddish brown substance, closely resembling fœcal matter issued through the opening. Evening, resp. 62 ; pulse 120 ; temp. 99 3-8°.

Sept. 12th. M.—Resp. 64 ; pulse 130 ; temp. 99 3-5. Tongue dry and thickly coated with a brownish fur. Sordes were beginning to collect about the teeth.

Evening, resp. 54 ; pulse 120 ; temp. 100°. Tongue fissured and very sore. The mouth wash was discontinued and the following substituted : zinc sulph. gr. viii ; aq. rosæ ad. 3viii.

Sept. 13. M.—Resp. 54 ; pulse 120 ; temp. 100 1-5. Tongue ulcerated and foul : she had been very restless during the night. The discharge from the abscess entirely ceased, and the tenderness on pressure and fluctuation have disappeared.

Sept. 13th. E.—Resp. 48 ; pulse 130 ; temp. 98. Tongue dry in centre ; edges, and tip covered with a yellowish fur.

Sept. 14. M.—Resp. 80 ; pulse 130 ; temp. 98. At 3 p.m. she died.

Post Mortem.

Sept. 15th.—Lungs.—The inferior lobes of both were found to be consolidated and would sink in water. The cut surface was mottled with yellowish spots, which appeared to be minute localized abscesses, from which, when compressed a kind of a grayish-white, purulent matter exuded.

The heart, liver, spleen and kidneys appeared to be in a healthy condition.

The dissection of the tumour not having been made at the time of going to press, further description of it is deferred.

Reviews and Notices of Books.

Contributions to Practical Surgery. By Geo. W. Norris, M.D., late Surgeon to the Pennsylvania Hospital, Vice.President of the College of Physicians of Philadelphia, Member of the Société Médicale d'Observation of Paris, &c. 8vo., pp. 318. Philadelphia Lindsay & Blakiston. 1873.

The work before us is of value to the student of Surgical Science, inasmuch as the author collects together a series of papers on the occurrence of non-union after fractures; the statistical results of operations on the larger arteries; the statistical account of the cases of amputation performed at the Pennsylvania Hospital, and a general summary of the mortality following amputations. His researches extend over a period of thirty years.

These papers, be it mentioned, have already appeared, as contributions from the author's pen, in the American Journal of the Medical Sciences, and the Pennsylvania Hospital Reports. The author states in his preface, that the papers on the occurrence of non-union after fractures, and upon the statistics of operations on the larger arteries, have met with favourable notice from the profession, and have been freely made use of by writers, with but slight notice, in some instances, of their source. These facts have induced the author to cull together the results of his labour, and to throw them into book form. This is simply all that the author claims for his work.

We cannot help a feeling of regret, in looking over the statistical tables, to observe that a book published in 1873, and one professing to show the results of operative measures, should bring no more recent material than the experience of the past generation. Far be it from us to decry the value of the statistics of such names as Sir

Astley Cooper, Colles, Dupuytren, Liston, Aston Key, Syme, Porter, Brodie, Jobert, Mott, &c., yet there are those of our own day, whose statistics are available, and if embodied, would have added materially to the value of this work. It is a great disappointment to find that these statistics break off at 1844 or 1845. Thirty years of surgical experience appears to be lost, and you turn from the book with a sense of its incompleteness. Nevertheless, we would not seek to lessen the credit which is due to the author, for the manner in which he has performed the work which he has done.

The section of his work in which he treats of the subject of non-united fracture, is especially worthy of notice. He enumerates the various causes that have been given to account for the occurrence of this state of things, and cites cases under each heading, from the experience of many eminent surgeons. He thus goes on to mention the treatment which has been adopted at two different periods, and by different surgeons, to cause union, and finally reduces the many different modes to five, viz.:

1. Compression and rest.
2. Frictions.
3. Seton.
4. The application of caustic to the seat of fracture.
5. Resection of the ends of the bones.

He describes the cases in which each of these methods is peculiarly advisable, and also he recimmends their occasional combination.

In the appendix to this division of his work, the author gives us in a tabular form, a number of cases of non-union after fractures, collected from English, French and American works and journals, in which he gives us his authority for each case, the surgeon's name under whose care it was, the treatment pursued, and the result, with various incidental matters peculiar to each. This table includes one hundred and fifty cases, and shows as he says, "probably, with tolerable accuracy, the success of the

seton and resection, though not of the other modes of treatment, which, being milder, were in several of the cases employed before the two first named, and more severe ones were resorted to."

From the tables and summary he draws the following conclusions :—

1st. That non-union after fracture is most common in the thigh and arm.

2nd. That the mortality after operations for its cure follows the same laws as after amputations and other great operations upon the extremities, viz.: That the danger increases with the size of the limb operated on, and the nearness of the operation to the trunk ; the mortality after them being greater in the thigh and humerus than in the leg and forearm.

3rd. That the failures after operations for their relief are most frequent in the humerus.

4th. That after operations for the cure of un-united fractures, failures are not more frequent in middle aged and elderly, than in younger subjects.

5th. That the seton and its modifieations is safer, speedier, and more successful than resection or caustic.

6th. That incising the soft parts previous to passing the seton augments the danger of the method, though fewer failures occur after it.

7th. That the cure by seton is not more certain by allowing it to remain for a very long period, which exposes it to accidents.

8th. That it is least successful on the femur and humerus."

He next discusses the treatment of deformities after fractures, and then gives the statistics of fractures and dislocations treated in the Pennsylvania Hospitals from 1830 to 1850. He then takes up the subject of compound fractures, and gives a statistical account of the amputations performed at the Pennsylvania Hospital, from January 1, 1850, to January 1, 1860. And also a general summary of the mortality following amputations in that institution for

thirty years. The last, and probably tho most valuable, part of the book, is devoted to the statistics of the mortality following the ligature of arteries, and included in this part, is a table showing the results of pressure in thirty-seven cases of femoral and popliteal aneurisms, under the care of various surgeons.

The author has done his work so far as he has gone, in an admirable manner; but we cannot help repeating our wish, that he had extended his labours into more recent times. Perhaps he may be induced to do so, at a not distant date.

Lectures on Clinical Medicine, by A. TROUSSEAU, late Professor of Clinical Medicine in the Faculty of Medicine, Paris: Physician to the Hotel Dieu: Member of the Imperial Academy of Medicine, &c., &c. Translated from the third revised and enlarged edition, by Sir John Rose Cormack, M.D., F.R.S.E. Fellow of the Royal College of Physicians of Edinburgh, and formerly lecturer on Forensic Medicine in the Medical School of Edinburgh, &c., and P. Victor Bazire, M.D., Assistant Physician to the National Hospital for the Paralyzed, &c. Complete in 2 vols. 8vo., each pp. 925.—Philadelphia, LINDSAY & BLAKISTON, 1873.

A new edition of this world-renowned work is to be hailed as a boon by every one interested in the progress and in the literature of the science of Medicine. It is enough to say that these lectures are the digested results of many years of the intensest study and most careful observation, by one of the maturest and clearest minds that ever gave itself to the investigation of the human frame diseased. They have been now for so many years before the profession and wherever read are held in such high esteem—an esteem based upon the clearness and lucidity of their explanations, the easy and flowing method of their style, and the infinitely varied nature of the cases introduced for

illustration—that it would be a work of supererogation on our part to endeavour to point out their many excellencies and numerous beauties. This, however, is not a mere reprint of the lectures as hitherto published, for since the appearance of the edition produced under the auspices of the Sydenham Society many such important innovations have been introduced into the practice of the Medical art, that it became necessary to alter certain portions which had then become antiquated, and at the same time many additions have been made so as to include the results of more modern researches and observations. Among the most extensive additions are the following; and it will easily be conceived how replete with interest are the Clinical remarks of such a teacher as was Trousseau upon such important and at the same time unsettled subjects, viz: researches regarding temperature in diseases, particularly in eruptive fevers and dothinenteritis; granular and waxy degeneration of muscles; lencocytosis in typhoid fever; the spinal and cerebro spinal type of typhoid fever; the application of the sphygmograph in diseases of the heart and epilepsy; the laryngoscope in lesions of the lungs; and the ophthalmoscope in cerebral affections. The new material we can only say is fully worthy of being incorporated with what has gone before it. It would be invidious to particularize any special portion of the added writings; they all bear the impress of the same master-mind, and are well-calculated to sustain the far-reaching fame of their deservedly famous author.

It is admirably printed, well-bound, and in every way creditable to the publishers.

Visiting List for 1874:

We have received from Messrs. Lindsay & Blakiston of Philadelphia, their Visiting List for 1874. It is exactly similar to those which have been in general use for some

years past, and which so fully meet the requirements of every physician. There is ample room allowed for memoranda of all kinds, whilst each department is divided off and allowed its own share of space. The paper is good and it is neatly and carefully got up, as it always is. We advise our friends to provide themselves with copies at once.

Books Received for Review.

Hand book of Physiology. By William Stenhouse Kirkes, M.D. Edited by W. Morrant Baker, F.R.C.S., with two hundred and forty-eight illustrations. A new American, from the eighth enlarged English edition, 8vo, pp. 656. Philadelphia, Henry C. Lea, 1873.

Chemistry, Inorganic and Organic, with Experiments. By Charles Loudon Bloxam, Professor of Chemistry in King's College, London, with two hundred and ninety-five illustrations. From the second and revised English Edition, 8vo, pp. 700. Philadelphia, Henry C. Lea, 1873.

Chemistry, General, Medical and Pharmaceutical, including the Chemistry of the U. S. Pharmacopeia. A Manual, &c., by John Attfield, M.D., F.C.S., Professor of Practical Chemistry, Pharmaceutical Society of Great Britain, fifth edition ; revised by the author from the last English edition, 8vo, pp. 606. Philadelphia, Henry C. Lea, 1873.

An Introduction to Practical Chemistry, including analysis. By John E. Bowman, F.C.S., late Professor of Practical Chemistry in King's College, London. Edited by Charles L. Bloxam, F.C.S., &c., sixth American, from the sixth and revised English edition, 8vo, pp. 339. Philadelphia, Henry C. Lea, 1873.

A Manual of Medical Jurisprudence. By Alfred Swaine Taylor, M.D., F.R.S., &c.; seventh American edition, revised from the author's latest notes, and edited with additional notes and references by John J. Reese, M.D., &c. &c., with illustrations on wood; 8vo, pp. 879. Philadelphia, Henry C. Lea, 1873.

Diseases and Injuries of the Ear. A series of lectures delivered at St. George's Hospital, by W. B. Dalby, F.R.C.S., M.B., Cantab., Aural Surgeon to the Hospital; with twenty-one illustration, 8vo., pp. 228. Philadelphia, Lindsay and Blakiston, 1873.

Lacerations of the Female Perineum, and Vesico-Vaginal Fistula; their History and Treatment. By D. Hayes Agnew, M.D., Professor of Surgery in the University of Pennsylvania; with numerous illustrations, 8vo. pp. 141. Philadelphia, Lindsay and Blakiston, 1873.

Correspondence.

BERLIN CORRESPONDENCE.

BERLIN, November 9th.

I ought to have written before, and let you know how things were progressing with me in this strange land. I am now in my fourth week of residence here, and I am beginning to feel quite at home, as much as one can, at least, among a lot of foreigners. I had a pleasant trip to Hamburg, and had time enough to do the City and Hospital, before starting for Berlin. Many things I saw that were of interest, but I shall have to reserve a more detailed account of them until a more convenient season.

I had some difficulty in obtaining rooms, and was a week at Topfer's Hotel, before I could get comfortably settled. Dr. Stadthaugen, to whom I had a card, very kindly aided me in my search. and I hope o remain at my present address until January 1st. Dr. Stadthaugen. is a professor of the language, and I have been taking daily lessons with great benefit. He is a first-class man, and gets all the Embassy people, and I am making progress with him.

Living is quite as expensive, or more so, than in London. I pay £3 per month for my room, attendance and fire. My room is very comfortable, and nicely furnished. Four years ago, my friend Dr. Simon tells me, the same would have cost £1 10s. at the most, so that you see things have "riz" here as elsewhere.

While I was at Topfer's, a Dr. Mackenzie, a brother of Dr. Morell Mackenzie, came there, and we have struck up quite a friendship. He is from the London Hospital. His rooms are close to mine, and we read German together. By a mistake—a fortunate one—we thought that the term began on the 15th of October, instead of which, it was not until the 27th, and some classes not till November 1st,

so that we had time to see the city and get well settled. The city is passing fair, brick built, and stucco-covered, but the smells from open drains rise into your nostrils wherever you go. It is simply beastly, but I have now, I hope, become acclimatized. London is sweetness itself in comparison. It reminds me of some of the balmy odours which engage our nostrils in Montreal, in the spring and summer weather. The streets are wide, and the houses very large, and let out in floors or flats, but the pavement is wretched.

I had some four or five letters of introduction to present here, two of which were useless, as Dr. Ewers died the very day I arrived, and Dr. Pontfick, Professor Virchow's first assistant, left a few days previously, to take a chair in Poland. Dr. Klein gave me a letter to Dr. Güterbrick, one of the lecturers on Surgery, who has been very kind, and introduced me to several of the young men and to Professor Henoch, the physician to the Childrens' department. I was going with him last Wednesday night, to the Medical Society, but I was laid up with a cold, and was therefore unable to go, Dr. Sanderson gave me a very good letter to Professor Virchow, who received me very graciously, and told me to come to him whenever I wanted anything.

The Pathological Laboratory or Institute, is a large building in the grounds of the Charité, but more of it and Virchow in a future letter. Frerichs and Traube are the Clinical teachers, the former from 11 to 12, the latter from 9 to 11 daily. The patients are brought into the theatre, and their cases explained. Frerichs speaks slowly and plainly, and I gain much more information from him than from Traube, who goes at a tremendous pace. Westphal, the Professor of Nervous Diseases and Insanity, is a very nice man, and I went round with him a few days ago. He has the large number of 240 beds, of which 180 are devoted to lunatics, and the remaining 60 to patients with nervous diseases. He has, however, two or three assist-

ants to help him. Langenbeck's Clinique is in a separate building, but is also connected with the Charité.

Among the odd things here in domestic economy, are the breakfasts and beds. The national breakfast here consists of a cup of coffee and two diminutive rolls, but I soon altered mine into something more substantial. The beds are a wretched agglomeration of feathers—no sheets, no blankets, no quilts—but two feather beds, between which you must sleep and stew. It went against the grain at first, but I am now reconciled. Dinners are good, and as compared with London, cheap. We dine at Topfer's restaurant for 1s. 6d., as you could not in London under half a crown, and the things are put on the table in good style, although I cannot yet manage some of the dishes, such as raw meat and greens, and so forth.

After the first of January, I hope to go to Vienna, and then back to England. I expect to be in England early in May, as I shall not remain more than two or three months in Vienna. I am over head and ears in work now, but I will write soon at greater length.

W. O.

On continuous Discharges after Delivery.—Dr. A. Wiltshire says that these discharges are most common among patients of the poorer class, who are, by the exigencies of their lives, obliged to rise too soon from the lying-in-couch, and who are, moreover, as a rule, sadly under-fed, not only at and during childbirth, but before and after. More rarely are they met with in higher ranks of society, chiefly in constitutionally delicate women, or in persons who have become weakened by too rapid child-bearing, or other debilitating causes. All classes alike are apt to blame their medical attendant for the persistence for some time of sanguineous discharges, in the belief that they are due to negligence or want of skill on his part.

The cause of this condition is due, in the great majority of, if not all, cases, to subinvolution of the uterus.

Involution should progress equally in every part of the womb, so that at the end of the process the normal relative proportions should be maintained; especially does this apply to that portion corresponding to the placental site where the uterine wall is thicker than elsewhere. It is here, however, that the process most often fails, leaving a surface prone to discharge blood and other fluids; and it is here, the author believes, that the persistent "colored shows" and "waters" mostly originate.

These cases are characterized by the persistence, with it may be occasional remissions or intermissions, of a sanguineous (red or greenish) flow, which sometimes weakens the patient to the extent of interfering with lactation. Subinvolution is liable to persons affected with heart diseases and chronic diseases which are accompanied with marked congestion of the venous system, as chronic bronchitis with emphysema, congestive liver diseases, etc. Feverishness hinders involution, and Joulin says the process does not actively set in until the pyrexia due to the establishment of lactation has passed away. It is, therefore, important to arrest all pyrexial complications. As regards the constitutionally feeble, in whom all vital processes are slow, absorption and restitution are not likely to progress very rapidly when the debility, which is normal to such persons, is intensified by the exhaustion of parturition, and the usual insufficient or improper diet to which lying-in women are commonly condemned. For such is a liberal diet especially useful.

Bi-manual palpation and measurement show in these cases excessive bulk. Ordinarily this coexists with increased length, but cases have been noticed in which the length of the axis was normal while the uterus was broader. On the relation of flexion and version to this condition Dr. Wiltshire does not lay much stress, remarking that "such accidents do occasionally complicate these cases, and aggravate them considerably."

Under the head of preventive treatment the writer im-

presses the necessity of prohibiting too early rising, and next regulation of the diet, the quality of which should be inversely proportionate to the quantity taken, due regard being had for the existence of fever, as determined by the thermometer, the habits and inclinations of the patient, and her intention to nurse the child or not.

Under the head of curative treatment he recommends the recumbent position, a firm bandage to the lower belly, and rich diet. Occasionally cases are seen in which there is an excess of nutrition, and subinvolution disappears under a regulated diet, potash or lithia, and aperients, and anti-rheumatic remedies in patients of that diathesis. Ergot is recommended, and digitalis and strychnia in some cases complicated with heart lesions. Very striking results have followed the use of quinine, as suggested by Monteverdi. Gueneau de Mussy, at the Hotel Dieu, has of late used it with considerable success in eight-grain doses for atonic menorrhagia.

Some patients, whose nutrition appears to have failed seriously, improve wonderfully under arsenic. Anodynes, especially opiates, should be sparingly used. Syrup of iodide of iron is recommended as a tonic, sulphate of magnesia to keep the bowels opened, and local application of iodine to the hypogastrium when there is much pain. Injections, if used, should be copious, and the writer prefers cold to hot ones. Astringents may be introduced into these injections, if necessary, and good may often be derived from hip-baths, the author having a high opinion of sea-water for this purpose, as well as for injections.—*The New York Medical Record.*

Rules for feeding babies.—The following excellent rules, on the feeding of babies in general, are extracted from an essay recently read by Prof. A. Jacobi, M.D., of this city, before the Public Health Association. The rules in question were prepared especially as a guide to the public, and coming from such a source, are more than ordinarily valuable. We wish they could be placed in the hands of

every mother and every nurse in the land. Embodying as they do the results of the experience of one of our highest authorities on the subject, they are also of particular value to the general medical practitioner. They are as follows :—

I. *Nursing Babies.*—Overfeeding does more harm than anything else. Nurse a baby of a month or two every two or three hours. Nurse a baby of six months and over, five times in twenty-four hours, and no more. When a baby gets thirsty in the meantime, give it a drink of water, or barley-water. *No sugar.* In hot weather—but in the hottest days only—mix a few drops of whiskey with either water or food, the whiskey not to exceed a teaspoonful in twenty-four hours.

II. *Feeding Babies.*—Boil a teaspoonful of powdered barley (grind it in a coffee grinder) and a gill of water, with a little salt, for fifteen minutes ; strain and mix it with half as much boiled milk, and a lump of white sugar. Give it lukewarm, through a nursing bottle. Keep bottle and mouth-piece in a bowl of water when not in use. Babies of five and six months, half barley-water and half boiled milk, with salt and white sugar. Older babies more milk in proportion. When babies are very costive, use oatmeal instead of barley. Cook and strain. When your breast-milk is half enough, change off between breast-milk and food. In hot summer weather try the food with a small strip of blue litmus-paper. If the blue paper turns red, either make a fresh mess or add a small pinch of baking soda to the food. Infants of six months may have beef-tea or beef-soup once a day, by itself, or mixed with other food. Babies of ten or twelve months may have a crust of bread and a piece of rare beef to suck. No child under two years ought to eat at your table. Give no candies, in fact nothing that is not contained in these rules, without a doctor's order.

III. *Summer Complaint.*—It comes from over feeding and hot and foul air ; never from teething. Keep doors and windows open ; wash your children with cold water at least twice a day, and oftener in the very hot season. When babies vomit and purge, give nothing to eat or drink for four or six hours, but all the fresh air you can. After that time you give a few drops of whiskey in a teaspoonful of ice-water every ten minutes, but not more until the doctor comes. When there is vomiting and purging, give no milk. Give no laudanum, no paregoric, no soothing syrup, no teas.—*The New York Medical Record.*

CANADA
Medical and Surgical Journal.

PARALYSED OR DRUNK.

Nothing is more common than to find in the London Medical papers notices of the mistaken arrest of individuals under the supposition of drunkeness, when in reality they had been suffering from some cerebral affection or the result of accident, and, whenever carelessness has been shown on the part of the proper functionaries in investigating the case, and when required, remedying it as quickly as possible, no scruple is felt in dealing out rebuke and censure to those in fault. And most important it is that the press—the medical press especially—should thus raise its voice to prevent the grievous injury of disgrace and imprisonment being inflicted upon any member of the community by those placed in authority for the repression and punishment of social abuses. The public have a right to expect, and the press have a right to insist that, where there is the faintest shadow of doubt in any case, every magistrate shall use all possible and reasonable circumspection, and shall not condemn to jail one who is physically afflicted as one who has committed a social crime.

A few weeks ago their arrived in this port a sailor who had, during a long voyage, developed the unmistakable symptoms of Locomotor Ataxia which had been threatening him for some time. The day following he left his ship, and was endeavoring, with the hesitating and uncertain gait peculiar to his disease to make his way to the General Hospital, when he was overhauled by a city policeman, and in spite of his earnest remonstrances, he was dragged to the station, charged with being drunk. On the morrow

he was presented before the Recorder, and when he again endeavored to explain the case, was told, on account of the difficulty of utterancc under which he labors, that he was "drunk still," and was forthwith condemned (in default of a fine), to imprisonment in the common jail for one month. This punishment the hapless man was obliged to undergo, finding it impossible to get any one to listen to his story, although it must have been clear to all that his condition remained unaltered throughout. Immediately on his release he sought and obtained admission into the Hospital where he is at present under treatment for his malady.

The above statement we have from the man himself, and have every reason to believe it to be substantially correct.

Now, making in all charity, due allowance for the possibility of error, (even with some degree of care) on the part of the committing officer, is it not outrageous that this man should not have been brought before the jail physician and by him immediately discharged? Is no notice to be taken of the complaint of sickness of a poor prisoner (and here how unjustly such)? Is any sick man thus improperly committed to a prison beyond all hope of redress? Or is it simply that this particular person was a stranger and friendless?

Let the blame be put where it may, none can deny that a most serious injury and grievous wrong has been done to an honest man, whose only crime was to have been laboring under severe bodily affliction. We protest, in the name of humanity, against the infliction of such gross injustice, and we believe that the city could be obliged to remunerate the sufferer by substantial damages for his false imprisonment.

OUR HOSPITALS AND SMALL POX.

The necessity for the complete isolation of small-pox patients, one would think, was such an understood matter as to require but few words to be used to bring about its

practical enforcement by the authorities that be. Unfortunately, however, it has not been so in Montreal. It is years since the establishment of such an institution for the city at large was first spoken of, and still the first stone for it has yet to be laid. Up to the present time we have been obliged to remain content with the accommodation afforded by the wards set apart by the Hotel Dieu and the Montreal General Hospital—and although now it is found that this terrible disease is once more spreading in our midst we have no place to send such patients where they will be sure of not becoming the focus for the origination of an unlimited number of other cases. We say this advisedly, for, even at the General Hospital, where every reasonable precaution against contagion has been diligently carried out, yet, even there, not one, but several, cases have occurred which without any doubt had been derived from the affected persons within the small-pox wing. This has always been the case before, and will surely be the case again. It is incurring a very grave responsibility to oblige every such person entering the wards of one of our hospitals, to incur the entirely unnecssary risk of his contracting this—frequentiy dangerous—disease. The poor, when sick, must go to hospital until well—it is not with them a matter of choice. Is it not then a duty to see that the man who is poor and thus finds himself an inmate of our public wards, shall have every reasonable opportunity of deriving all possible benefit of the medical treatment afforded him there, without—unknown to himself—being hourly in danger of suffering from a disease perhaps infinitely more severe than his original complaint, if, indeed, it do not threaten his very life. Of course it is. Responsibility then, for this neglected duty, lies somewhere. Every one who, in any way, obstructs the laudable efforts of those who are desirous of aiding in the establishment of a general small-pox hospital—with the fundamental principle of complete isolation, and the most thorough quarantine regulations—voluntarily agrees to assume his share of the responsibility for the pre-

sent alleged cruelty and injustice. The matter has been discussed, and turned over again and again before the City Council and the Health Committee, the abstract principle of the propriety of erecting a building with the above-described conditions has been admitted, and a sum of money voted. But, unhappily, here the thing has ended; practically, we appear as far as ever from the realization of the only true idea of a perfectly separate infirmary. Again we see the authorities of the Hotel Dieu offering, for a consideration, to put up a building for the purpose in their grounds, and to see that it is isolated from the rest. We object to this—we do not believe that the isolationcan be sufficient or complete. We protested against the erection of the present Molson wing of the General Hospital, on exactly the same grounds, and we can only say that we regret to find how fully our predictions have been verified in the latter case.

We protest in the name of humanity against the unnecessary delays and hindrances which this project is meeting with, and we trust before long to be able to announce that some satisfactory and definite action has been taken in the matter.

Tilden's Fluid Extracts,

We call attention to the advertisement which appears elsewhere, of the fluid extracts manufactured by Tilden & Co., of New York. We believe that these extracts are so well-known to the profession in Canada, as hardly to require a word of commendation, but although unnecessary, it is fully merited that we should bear our testimony to the uniform excellence of these preparations. No more positive evidence of our own confidence in the invariable reliability of Tilden's Extracts, can be given, than when we say that it has long been our habit, when ordering any of them in prescription, which are powerful, and therefore must be accurate, to insist upon having them from this laboratory, and we know that a great many physicians in Montreal do the same thing, and have never yet been disappointed.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Series of Cases of Poisoning, by Vinum Colchici recently occurring in Montreal. By Geo. W. Major, B.A., M.D.

Read before the Medico-Chirurgical Society of Montreal.)

At 1.30 P.M., on Wednesday Nov. 26th the Police authorities summoned me to attend several persons, reported to have taken some unknown poison, in large quantities :

Detective Lafon, accompanied me and informed me, while on our way, that one case had proved fatal at 12 A.M., and it was only reported at the station after the first death.

On arriving at the place, I found in the tenement, five persons, suffering intensely. I asked for the vessel in which the poison was contained, and was shewn a large " Winchester " bottle capable of containg 94 ounces. On smelling, I thought I detected a " vinous " smell. The bottle had been washed after its contents had been emptied. On enquiry, the victims described the taste as resembling port wine and bark. After drinking, it left a very bitter taste in the mouth. In another dwelling on the oposite side of the yard, were several more cases of poisoning by the same liquid, one very severe in its symptoms.

I was quite unable to decide as to what the poison could be ; all my questions were freely answered, but little information of any value was obtained. On examining Flaherty, (case No. 3) I learned that on the evening of Monday the 24th, he, in company with a cripple, Willie

Hauky, æt. 17, had found this bottle on Alexander street, imbedded in the snow. As his tale did not coincide with the story told by his companion of that evening, we decided to receive it "cum grano." Whatever the poison was, it was certainly irritant and very sedative.

Accordingly without any further loss of time, mustard emetics were freely administered, (not being aware that all the poison had been rejected from the stomach), this was certainly unnecessary, as vomiting had been freely present in all from soon after taking the poisonous dose, and continued until the time of my arrival. Flour and water was ordered and bountifully used. Brandy and ammonia, in very large amounts, was given and continued up to the end.

After doing all possible for the patients, on information received from Edward Hauky, that a flask containing about eight ounces had been carried down to the eastern part of the city by his brother William, in company with Dr. Dugdale, Medical Health Officer, and Detective Officers Lafon and Murphy, I proceeded to find out these people in De Salaberry street. After searching in vain, hunting through every tavern and den, the officers discovered some persons answering the description, resident in a miserable hovel, in a yard off No. 55 Alphonse lane. Here we found our man collapsed ; two children, one of nine years, seriously ill ; one of three years less so. His wife had also partaken of the contents of the bottle—not only the night previously but also on the morning of that day. A physician had been in attendance already, who was accordingly summoned, and informed of the nature of the case.

The dying man, on being questioned, told us of yet another victim :

Andrew Lang, of No. 33 Hypolite street. Leaving William Hauky wife and children in charge of Dr. Lussier, who had now arrived, and amply supplied him with Brandy and Carbonate of Ammonia, we again started in pursuit of what we hoped to be the last victim. Lang had been attended by Dr. Turgeon that morning, but poisoning had,

as in the others, not been diagnosed. We found Lang presenting much the same appearance and symptoms as the others. And sending for his attendant at the same time ordering the same stimulants left for our first cases.

While at William Hauky's house we obtained about three ounces, of the poison, which had not yet been consumed, and on examining, discovered Colchicum Wine. This information gained, we were about as well off as before. No antidote, Nothing better suggesting, the original treatment was pursued. During an absence of about two hours, or less, two deaths had occurred and more threatened to end fatally every minute. Their spiritual advisers were in attendance, and the "Sisters" nursed and cared for all. The house was destitute of wood for heating, and bedding was very deficient. All these requisites had been supplied during our absence. Although all the cases had been deemed hopeless, still stimulants were freely used,—in the hope of carrying some through the danger. Sister Cleary informed me that all desired to be allowed to sit up,—but she had refused permission. The wine was from the establishment of Evans, Mercer & Co., manufacturers, and was made from the "seeds."

From experiments performed with a portion of the recovered sample, the wine was found to be very active. The wine of seeds is much more uniform in strength. As the seeds are only matured once in the year and are then gathered, whereas the Corm is always obtainable, and is very variable in activity in different seasons. In estimating the activity of Colchicum the variable strength of the different preparations must be kept in view. The Corm is most active in July and August; the seeds are more uniform in strength and the flowers and leaves feebler. In some seasons of the year the Corm is almost inert. The seeds are very hard indeed, quite as tough nux vomica seeds. Mr. Mercer, a gentleman of wide experience as a Pharmaceutist, informs me, that it is almost impossible to crush them, and if placed in the mill, without being soaked for

three or four days in sherry, several days have been consumed without reducing more than one half or two thirds the quantity submitted for grinding. The same gentleman considers the wine of the seeds most energetic, and most reliable.

The wine of the Corm is the only one officinal in the B. P. One made according to the formula of Dr. Williams, and containing two ounces of the seeds to the pint is used in Great Britain. And when Vin. Colch. Seminis is ordered, this preparation is understood—there. The U. S. P. Preparation of the seeds is made with 4 ounces to the pint.

The wine used by the victims in the late poisoning case was made from 4 ounces of the seeds, according to the U. S. P. In referring to the cases mentioned by Guy & Taylor in their works, the wine of the Corm will be understood unless otherwise mentioned.

It appears from the evidence which I was enabled to obtain by questioning the poisoned persons, and afterwards confirmed under oath at the Coroner's inquest, that the Winchester flask, containing the wine of Colchicum (which is now before you) was stolen from an Express van in Alexander street, about seven o'clock, on the evening of the 24th November, by the man Flaherty accompanied by the boy Willie Hauky, and brought to the residence of these people in Tabb's yard, off Hermine street. They all tasted of it, and judging from the appearance of the flask and the way in which it was done up, as also from the acrid taste, decided it to be unfit to drink,—placed it on a shelf, and did not again resort to it until the following Wednesday the 26th November. Several of the family had on this day attended the funeral of an infant child of William Hauky, (deceased), and on their return had entered the dwelling of Edward Hauky. Then, liquor being asked for, this bottle was produced, and on the recommendation of William Hauky (deceased) who declared it to be the best description of Port, was freely partaken of by the

party. The quantities taken by each may be seen on reference to the tables A. B.

The cup out of which they drank was an army regulation tin drinking cup, and is capable of containing six full ounces. After repeated inquiry and cross-examination, I am quite decided bumpers were the order of the day.

The orgie commenced at 5 o'clock, p.m., and ended with the finishing of the wine at 5.30.

The boy Thayer, to whose father the cup belonged, and from whom it had been borrowed some time previously, was not neglected, but received almost three-quarters of a cup, or about 4 ounces, at a moderate calculation. Mrs. Dunn, an invalid, was sent over about two-thirds of a breakfast cup full, and after sharing it in small quantities with the children, drained the remainder—the quantity may be computed at 4 ounces—of which the children had about two ounces between them, leaving the woman an equal amount.

William Hauky on leaving for his house in St. Alphonse street, took with him a small brandy flask (3 gills) containing about 8 ounces of the wine. On the street he met his nephew Andrew Lang, and gave him a "pull of the bottle." Lang says he took two swallows, or about two ounces. On arriving home, distant about two miles, he gave his wife and two children, (aged 9 and 3 years old) a drink. Soon after he complained of feeling unwell, and mentioned to his wife that he believed the liquor to have been poisoned. During the night he experienced the symptoms hereafter to be described. His wife had a drink of the wine the following morning. This woman was not attacked with any symptoms until the evening following the first dose. I may here mention, that probably the symptoms were warded off by liberal potations during the day.

The cases of Colchicum poisoning on record are not very numerous, in all, perhaps, not more than six or eight, that may be considered reliable.

The numerous reports of fatal terminations in gout, by metastasis to the stomach, &c., may sometimes be accounted for by the Colchicum preparations used, The remedy, although pretty sure in its action is powerful, treacherous and unmanageable. Many of the leading Physicians in this city have entirely abandoned its use for the above reasons.

Guy and Taylor refer to the following:

Case I.—In Nov. 1839, a gentleman swallowed by mistake one ounce and a half of Wine of Colchicum, and died in 7 hours. Severe pain in abdomen and other symptoms of irritation were prominent. No post mortem examination was held.

Case 2.—One ounce of the wine produced death in 39 hours.—*Schneider's Annalen*, vol. p. 232.

Case 3.—One ounce taken.—Cramps and twitching of tendons—recovery.—*L'Union Medicale*, Aug. 24th, 1848.

Case.—Woman with With Acute Rheumatism, aged 56 years, for whom Vin. Colch. Sem. had been prescribed, took by mistake one ounce in divided doses in 12 hours. Nausea, profuse vomiting, slight purging, heat and burning pain in throat; great thirst, cold clammy skin; feeble pulse, pain in stomach, &c. These symptoms continued for three days. She ultimately recovered. — *American Journal of Medical Sciences.*

Case 5 —Mr. Tereday reports a case of poisoning from two ounces Wine of Colchicum. Symptoms occurred one and a half hours after taking it, and vomiting of a greenish fluid, severe pain and great tenderness over the abdomen tenesmus, thirst.—Death took place in 48 hours. No convulsions, and no signs of cerebral disturbance. Post mortem examination showed a red patch of mucous membrane of the stomach near the cardiac orifice. Intestines slightly inflamed. The head was not examined.—*Medical Gazette.*

Case 6.—Mr. Mann, of Bartholomew Close reports death in four days from 3 oz. in divided doses. At the post mortem, no inflammation of the mucous membrane was

found, but there was extravasation into the mucous follicles.

Two further cases, where one and a half ounces had been taken, and fatal results in 48 hours.

Post mortem no morbid appearances were found.

In the seven fatal cases which occurrad under my care, not a single post mortem was obtained. This is a subject for very great regret, as many years may elapse before again such an opportunity for deciding the condition of the body after Colchicum poisoning may present itself. In the fatal cases the amount taken averaged from 6 or 8 to 14 and more ounces. Do not think that I now exaggerate the quantity, on the contrary, I am, for the sake of safety, placing my calculations at the very lowest figure. Death from such large amounts must certainly have marked appearances—and deductions from these cases alone could have been made, which would have established such facts, as to make post mortem appearances after Colchicum, as certain as are those from any of the other well-known poisonous agents. The Foreman of the Jury requested an examination, but it was refused him. At the solicitation of G. Prout Girdwood, M.D., &c., the able Chemist and Toxocologist, I applied personally to the Coroner—but was politely refused on the grounds that the order for burial had been issued, and the matter was no longer iu his power. Possibly I was to blame in not insisting, and at a more early day that post mortems should be granted. The symptoms and appearances before death are, however, fully noted as observed in seven cases, (as also a full hisrory of ten patients convalescent or now recovering), and cannot fail to be of very great value in the future. They have been faithfully recorded, and will be reproduced in a resumé of symptoms towards the end of this paper.

These cases were visited by nearly 40 physicians, and seemed to excite much interest and sympathy.

In the foregoing sketch it will be observed that I have adhered as closely as possible to the facts in the order in which they occurred, or as they were divulged.

Effects after taking the poison :

In the vast majority of the cases, the symptoms were quite the same, and in only one or two instances did they vary in the least.

In from 45 minutes to an hour and a half after taking, the feeling of general uneasiness and malaise was felt, this was attributed to the quantity of liquor taken, and no alarm was felt until all were seized with vomiting and cramps of the stomach and bowels. Edward Hauky, at present recovering, went to the surgery of a Physician near by ; the Doctor on hearing the symptoms, decided the case to be choleraic, and gave a mixture of chloroform and morphia. This was used by them all in small quantities, but was freely partaken of by Edward Hauky (now recovering). The sufferers regarded the medicine as an emetic, and it was not until after inquiry from the Medical gentleman I became aware of the true statement. The vomiting continued during the entire night and following day and only ceased in the fatal cases at the " end "— in the recoveries, retching nausea, gapeing and eructations with vomiting at intervals of every five or ten minutes, continued for days together. The vomited matter was first, the contents of the stomach, next bile or mucus, and lastly a peculiar looking fluid which I can only compare to thin pea-soup, or dish water. The pain over the stomach was certainly severe, but not so agonizing, as authorities state ; they complained but little. Pressure over the stomach developed pain instantly—on withdrawing the hand relief was experienced. The bowels were also very sensitive.

At the same time as the vomiting came on, so did the purging, preceded and accompanied by griping pains. The substance passed was, natural contents, bilious stools, rice watery stools—frothy mucus, (compared by one of the patients to clear soap suds). Purging continued all night, and soon the rectum became incapable of containing the contents of the bowels. Stools became involuntary, and were voided unconsciously. Heat and pain of anus ;

Cramps were felt in legs ; in two cases severe pain in the knees were complained of, and the limbs were kept flexed. Cramps in the toes—cramps of the fingers and thumbs.

In one case (Edward Hauky), very great pain was found in left shoulder. This pain lasted for several days, and was very annoying to the patient. Pains in the back were severe.

No pains were complained of in the hips, at least I heard of none, no headache in any case.

Great pain in the throat ; all were hoarse as if suffering from an attack of acute laryngitis. Great thirst ; drinks were continually called for, and immediately rejected.

During the night previous to my seeing them, they had been drinking water in large quantities, the floor was one pool of vomited matter and water. The extremities were cold, icy cold and shrunken ; the coldness extended up to the trunk ; the trunk was covered with a clammy cold perspiration ; the temperature was normal or slightly below.

The eyes were suffused congested, and running water ; pupils dilated ; the tongue was coated with a thin white creamy fur—tip and edges were red.

The nose was pinched and blue, lips drawn, lobes of the ears blue, nose and ears cold. Countenance anxious and slightly livid—in fact the face was that of a person shivering from cold. The pulse ran from 135 to 145 in *every* bad case, and became imperceptible ; character of pulse was peculiar : intermitting, fluttering, thread-like, small often ceasing, again returning, failing again. When pulse was not found at the wrist it could sometimes be detected, with care, at the elbow. No pulsation in temporals. Heart's action was very weak, sound almost inaudible. Only one sound could be appreciated, resembled a steam propeller in the distance — very labored sound — impulse could not be felt over the side. In the recoveries the heart's impulse gradually was restored—when sounds improved patient was out of danger. No head symptoms—

mind and intellect could not be more clear—all questions answered willingly. No nervous symptoms.

When the purging was not very excessive, a considerable amount of urine was secreted. The boy Thyer passed large quantities of dark, thick-reddish urine,—so his father has informed me. He took, about four hours after the poison, a gill of gin. This may have increased the secretion somewhat. The others passed urine in less amounts—in the two cases more passed. They all seemed to desire quiet, and would cover up their heads, and turn away to seek rest. None slept.

Breathing was very rapid but free: 36–40 respirations in the minute.

Numbness of forearm was complained of. In two cases there was slight subsultus. One case was slightly convulsed before dying.

All sat up before death and called for drink. The symptoms were those of collapse. Had these cases occurred under less suspicious circumstances in the warm season, and under the same low hygienic condition, I should have felt very much disposed to have concluded that they were in the collapse stage of cholera morbus. These appearances and symptoms were noted on my arrival 22 hours after the poison had been consumed.

I have endeavoured thus far to give you all the facts of this case, in the order in which they became known to me, and I trust you will not find them confusing.

Next, it is my intention to report one case in full. The others will be found in tables appended. I would read each case separately, were it not that they all so closely resemble one another, that it would be one continual repetition, and might be found irksome. Any peculiarity will be found noted in the tables under special symptoms. The case of Edward Hauky is the one selected, as the best for exemplification—his symptoms being quite as severe as any. He took as large an amount as any with one exception (his

brother) and he is now, though still seriously ill, gradually improving—we shall regard his case as typical.

The symptoms described before were those occurring 22 hours after taking the wine, also those of the night on which the wine was taken. After giving notes in Edward Hauky's case, I shall give a synopsis of general symptoms taken up to time of death or recovery, as the case may be.

EDWARD HAUKY'S CASE :—

Edward Hauky, Æt. 35, laborer ; strongly built, stout man ; had been at funeral of brother's child, and had taken two glasses of spirits on road home ; at 5 o'clock drank two cups full, (he still persists in saying brim full). About an hour and a half after commenced to feel unwell, laid down and soon began vomiting ; cramps, purging, great thirst. Went to a Physician, and obtained what he considered an emetic, but which the Doctor since has told me was chloroform and morphia—took some himself, and gave it to the others. During entire night vomited and purged, drank water. Passed water from bladder freely twice during night. At two o'clock next day saw him for first time. Pulse 125 to 140; cold feet and hands, face drawn ; nose, lips and ears blue ; vomiting, purging, anus swollen and painful ; evacuations passing away involuntarily. No headache or nervous symptoms. Very great pain in left shoulder. Cramps in stomach, bowels and legs, pain in knees,—tenderness over stomach and bowels. Voice like a raven's croaking. Painful to speak. Pulse intermitting, almost a thread—often absent. Heart sound barely audible—only one sound, as if a heart beating far away. Ordered hot water and bricks to feet and legs. Mustard to stomach.—Brandy and Ammonia internally in very large does. Also milk and gruel, and small pieces of ice. Considered his recovery impossible. Vomiting and purging continued for next three days, with very little abatement. Ordered him turpentine stupes over bowels and stomach. Lime water and milk and essence of beef internally. Hot applications externally. Very little improvement for several days.

Nov. 27—Visited patient with my friend, Dr. Ross. Still in very critical condition, but improvement certainly marked. Pulse 120.

Nov. 30.—Passed five stools. Pulse 112. Sleepless—vomiting every five minutes. Food almost immediately rejected. To use lime water and milk.

Dec. 1st. 10 p.m.—Four stools—very severe pain in the back complained of. Throat not so painful. Perfectly raw inside. Voice very husky. Vomited ten or twelve times. Continued ice. Pulse 98, strong and full. Ordered one grain pulv. opii., repeated in two hours if not asleep. Consumed two quarts milk and beef tea. Pain in left shoulder not so severe, was prominent symptoms for the first three days, and loudly complained of. Dr. Henderson of Edinburgh refers to this as a prominent symptom in a case under his notice.

Dec. 2nd, 7 p.m.—Six stools to-day ; passed but little ; intense pain over umbilicus, though in pressure elsewhere over abdomen, no pain was experienced. Pulse 78 full and regular. Great thirst ; vomiting very much diminished. Ordered one grain of opium. Did not sleep at all night previously on two grains

Stop Ammonia and Brandy—which up to now had been pushed heroically. Continue lime water and milk, and beef essence.

Dec. 3rd, 7 p.m.—Perfectly sleepless last night. Pulse 80 ; very strong and tense ; tongue somewhat clearer—red tip and edges.

Since yesterday feels numbness of both thumbs under the nails. Pain in left shoulder, and scapula much less.

Two ounces Ol. Ric. given at 9 a.m. ; has not yet operated.

Ordered fresh eggs with milk.

Vomits but little ; throat still sore ; very hoarse ; has an eruption over the body, resembling poisoned punctures as seen in dissecting wounds. Pains still severe over stomach on pressure.

Dec. 4. p.m.--Gave two powders each of gr. 5 Cal., and 2 opium—one at 8 and one at 12, if not asleep.

Dec. 5.—Saw Hauky with Doctor Simpson.

Pulse 86, full. Pain over stomach very much diminished. Spent very good night ; slept 4 hours. Took dose of salts and senna [without my knowledge]. Severe griping pains, vomiting. Milk and eggs.

Dec. 6.—Full and regular pulse, 78. Throat not painful, still very hoarse. Great thirst. No pain over stomach. Consumed 4 eggs and two quarts of milk ; yesterday quart beef tea, &c. Still uses lime water. No vomiting of any consequence. Hands if left outside bed clothes become numb [from wrist to elbow], although room is warm. Knees cold all the time.

After the salts had two passages resembling the yelk of egg in appearance.

Dec. 12—I saw Hauky this evening. He is up. Limbs are very numb, big toe of left foot quite insensible, and legs feel as if asleep. When his bowels are moved complains of griping. Uses fresh eggs beaten up with milk every day. Very constipated ; only has evacuations when procured by medicine.

Dec. 14, 1873—Still continues to improve. Appetite very fair. Ordered quinine mixture ; complains of numbness of limbs, creeping sensation, &c. Hair of the head has commenced to fall out in quantity. In a week he will be completely bald. Before the accident he had a very full head of hair, and in fact until a few days ago. Walked as far as Bleury street, a distance of 75 yards. Was very much exhausted after his return. Experiences great trouble in using his legs, which feel as if they were asleep.

Dec. 18.—Hair still falling, is almost bald. Throat still hoarse ; has pain at closet, or when he bends his body. Sleeps much better.

Lives on fresh eggs and milk. Cannot digest solid food with any comfort.

Ends of thumbs feel still numb. Has lost fully 30 lbs weight. Bowels very constipated.

General Remarks, Appearances, Symptoms, &c., as seen in seven Fatal Cases and ten Recoveries.

The constitutional disturbance was proportionate in severity to the amount of poison taken, of course affected by general health, strength, previous habits and age.

In the fatal cases, the amount of poison varied from 4 to 18 ounces, with one exception, viz., that of Mrs. Dunn, an invalid, who succumbed to a dose of two ounces.

The deceased persons, with the exception of the boy Thyer, and Mrs. Dunn, were all dissipated and low lived. In my opinion, had they been of good strong constitutions, and had received prompt aid, we should not have had the painful duty of chronicling the demise of so many. The children seemed to be more capable of throwing off the effects of doses, which to them ought to have been quite as fatal as very much larger ones to adults.

When small quantities, as half an ounce to one and a half ounces were taken, after the sedative action was overcome, convalescence took place rapidly. For two or three days there was, as a matter of course, considerable irritation of the stomach and bowels, and such other symptoms as we might naturally expect.

Antiquity of Colchicum as a Remedial Agent.

The Colchicum plant, Colchicum Autumnale, popularly known as meadow saffron, or Autumn crocus, order Melanthaceæ is a native of moist rich meadows in many parts of England.

Diascorides describes this plant under the names Colchicum, Epherum, and Wild Bulb, and state that it abounds in Messennia and in the Island of Colchos, (from which latter place it received its name.) He describes its poisonous effects as resembling those of mushrooms, and decides upon milk as the best antidote.

Galen alludes to its poisonous qualities.

Paul of Œgina, who flourished in the next century, speaks of Hermodactylus and of its uses in gouty complaints,

and at the same time, remarks that it produces nausea and anorexia, and is injurious to the stomach; and adds that it is speedy in its action.

Alexandet of Tralles, writing in the 5th century, refers to the efficacy of Hermodactylus in gout, after the production of watery stools, yet like his predecessors, states that it increases the liability to attack. Dr. Paris and Sir Charles Scuddamore, of modern times, also agree that the tendency is augmented. Many Arabian Physicians have referred to its power of alleviating gouty and rheumatic pains, and recommend poultices of the root in painful affections of the joints.

Like many other remedies of merit Colchicum fell into disuse until 1718 when it was revived by Wedel, as a prophylactic for the plague.

Again in 1763, Storck brought it forward in the treatment of Dropsy, Gout and Chronic Catarrh. In the interval between 1814 and 1820, by the publications of Want, Home, Haden, Williams, Copeland and others, it was again established in the confidence of Physicians. Mr. Want was very much impressed with the resemblance between the action of "Eau Medicinale" and that ascribed by ancient physicians to Colchicum and Hermodactylus, and also with the fact that Colchicum entered into the composition of Turner's powders, Vienna decoction, and other gout specifics.

Action on Lower Animals.

Colchicia or Colchicina, the alkaloid, has action on the lower animals, similar to veratria the alkaloid of White Hellebore.

Colchicum is poisonous to herbivorous animals, and is generally avoided by them.

It acts with severity on horses and cows, producing inflammation of bowels, purging, running of eyes and nose, destruction of stomach, &c.

It is especially inimical to the dog, and is called by the French "Mort au chien," from its very fatal effect.

Rabbits and frogs, it would appear from experiments, enjoy very great immunity from the action of Colchicum, and have been known to recover from doses fatal to large dogs. Lewins reports having given 6 drachms of the wine of the seeds to a rabbit, without producing any result beyond an abundant secretion of urine.

Resume :—

In from 45 minutes to one hour and a half after taking the wine, vomiting ensued. The contents of the stomach were first rejected, then bile or mucus ; afterwards a fluid similar to " rice water " of cholera.

When the amount of poison taken was very great, the purging came on simultaneously with the vomiting,—but if only a small quantity, comparatively speaking, had been swallowed, the evacuation of the bowels was delayed for several hours. The passages were first the natural fœces, then bilious stools, next " rice water,"—a very large amount of a frothy, slimy secretion, compared by one of the patients to clean soap suds. In no case were there any traces of blood to be found. The vomiting continued until the last moment in the fatal cases, and the bowels were emptied involuntarily. Cramps were severe in the stomach, bowels and legs. Severe pains were felt in the knee joints in some. And in two cases very markedly in the left shoulder, so much so, indeed, as to be a continual cause of complaint, and avoidance of laying on the left side. Rubbing was frequently demanded for relief. In the majority there was numbness from the elbow to the wrist ; cramps of the fingers, especially the second finger, and in one case extreme numbness of the thumbs under the nails. This latter peculiarity was present even for twenty-six days after. In the case of the boy Thyer, there was great pain between the shoulders. The features (twenty hours after the accident) were pinched and drawn, lips and nose blue, as also the lobes of the ears. The eyes were congested, pupils dilated slightly ; voice hoarse and husky, and pain was experienced in speaking.

Feet and lower extremities icy cold, as also were the hands and arms. The rest of the body had a warmish clammy feel, but was below the normal temperature. The pulse was rapid, 125 to 145 or more in the minute, small, compressible, intermitting, and at times imperceptible at the wrist, though it could be found at the elbow with some trouble. The temporal arteries were difficult of detection, even the carotids required patience to distinguish. For several hours before death, they were almost pulseless, the heart's impulse was not to be felt over the chest, and even with difficulty heard on applying the ear to the chest wall. The sound might be likened to a blowing sound, or a murmur, or to a heart heard at a very great distance, or through a stone wall, both sounds lapsing into one.

Respiration was full and easy, and was well maintained throughout. The pulse respiration ratio was borne out throughout.

The sufferers were sensible to the last and throughout. One case terminated with a slight convulsive effort. All sat up before dying, falling back in less than an instant. No headache was complained of. Muscular strength was retained. They were all able to sit up, lift a cup to their lips, or even walk.

They were perfectly sleepless. In two recoveries there appeared a pustular eruption on the face and lower extremities, resembling in its character poisoned wounds.

In the case of the boy Thyer, while sawing wood, an hour after drinking the wine, he was seized with violent retching and vomiting succeeded by a "fit," which from the decription resembled a convulsive attack. Thumbs were turned in, with the fingers closed over them.

The amount of wine taken varied from one mouthful to 15 or more ounces.

The symptoms in every case were proportionate to the amount of wine taken.

All the fatal cases terminated in from 19 to 28 hours.

After death the features assumed a placid quiet expression; dependent parts of the body were tinged blue.

A FATAL CASES.

No.	Name.	Age.	Amount taken.	When taken.	When deceased.	Interval between taking and death.	Occupation and Appearance, &c.	Special Symptoms.
		Years.	Ozs.		Nov. 27, 1873.	Hours.		
1	Benjamin Thyer.....	12	4	November 26th, 1873, 5 p.m.	12.00 a.m.	19	None. Stout and healthy lad.	After vomiting had an attack resembling convulsions.
2	Mary J. Drennan....*...	25	8		2.30 p.m.	21½	None. Paramour of Flaherty. Dissipated.	Slight convulsive movements of head and arms before death.
3	William Flaherty, *.....	24	8		3.00 p.m.	22	Professed sneak thief. Emaciated and miserable.	Nothing peculiar.
4	William Hawky.....	33	10		6.00 p.m.	25	Day labourer. Strong and able-bodied.	
5	Mrs. Dunn.....	45	3		6.30 p.m.	25½	Invalid—respectable.	Purging was very slight—vomiting not so severe as in the others.
6	Elizabeth Drennan.....	30	8		7.00 p.m.	26	Paramour of Edward Hawky. Intemperate.	Nothing special.
7	William Drennan.....	22	8		9.00 p.m.	29	None. Strong young man.	Showed great desire for quiet. Features particularly livid.

The Winchester bottle contains 94 ozs. (5lbs. 14ozs.,) and was quite full.

* Willie Hawky, aged 17 years, a cripple, was with Flaherty when the bottle was stolen, and tasted it the first day, but was absent from home when it was freely partaken of on the 26th November.

No.	Name.	Age.	Amount taken.	When taken.	Duration of Convalesence.	If retained on stomach and how long.	Special Remarks.
			Ozs.		Days.		
1	Edward Hawky.....	35	11	5 p.m., Nov. 26.	26	$1\frac{3}{4}$ hours.	Very marked pain in left shoulder and scapula.
2	Andrew Lang.....	17	2	6 p.m., Nov. 26.	11	1 hour.	Marked pain in left shoulder and scapula.
3	Mary Qurk, wife of W. Hawky, deceased.....	39	3	9 p.m., Nov. 26. and 9 a.m., Nov. 27.	3	No vomiting occurred for 20 hours.	Symptoms did not occur until late on the second day. Had been drinking.
4	Annie Hawky.....	9	$1\frac{1}{2}$	9 p.m., Nov. 26.	2	Retained—Violent symptoms.	Very high pulse and severe vomiting, coldness of extremities well marked.
5	Millie Hawky.....	3	$\frac{1}{2}$	9 p.m., Nov. 26.	Vomited almost immediately.	Rejected some after.	Coldness of surface.
6	John Dunn.....	10	All partook sparingly, and if swallowed, vomited.	From 5 to 6 p.m. November 26.	Indisposed for 24 or 48 hours.	If in very small amount retained—if a little more, rejected very soon after.	Reliable information as to quantity consumed, could not be obtained. The quantity must have been very small, 4 to 6 drams at most. Purging and coldness of the extremities was noted. All crowding round the stoves. Appetite impaired, &c.
7	Louisa Dunn.....	14		Do. Do.	Do. Do.		
8	Lucy Dunn.....	13		Do. Do.	Do. Do.		
9	John Peacock.....	13		Do. Do.	Do. Do.		
10	John Rogers.....	17		Do. Do.	Do. Do.		

Case of Excision of the left Superior Maxillary and Malar Bones, and one half of the Nose; by M. METIVIER, Holyoke, Mass.

A few weeks since, Dr. Metivier operated on a woman suffering from a large cancerous tumour, which involved the left cheek, and left side of the nose, together with the Superior Maxillary and Malar bones, on the same side. As a large portion of the integument and tissues below the eye had been removed by ulceration, and a large gap was left, it was not possible to make a flap in the usual way; the following plan was therefore adopted. The patient was seated in a chair, and put slightly under the influence of chloroform, the head leaning well forward, to prevent the blood from running into the throat. An incision was then made, beginning on the middle of the nose, at the nasal process of the superior Maxillary bone, and was carried downwards, dividing the nose at the edge of the septum, and opening up the nostril. It was then carried down, dividing the upper lip in the middle line, into the mouth. A second incision was made from the zygoma, horizontal to the superior border of the malar bone, and on the margin of the orbital plate. This incision curved upwards. A third incision was then made, beginning at the external angular process of the frontal bone, and running obliquely downwards to the lower margin of the nostril, connecting with the first incision, and leaving a large triangular portion of integument to be excised with the tumour. Several arteries required to be tied at this stage of the operation. The soft parts of the hard palate were then divided, and a tooth drawn; the alveolar process was sawed through, and the palatine and orbital plates divided with the bone pliers. The saw was again used to divide the Malar bone, and the Zygomatic process. A few sweeps of the knife, with strong depression, brought down the mass out of its place, leaving a large hole. The patient was roused from under the influence of chloroform several times during the operation, in order that she might clear the

throat from clots of blood, and also that she might take a stimulant. The bleeding was slight, not amounting to more than three ounces. In order to replace the lost integuments which had been excised with the tumour, the incision on the zygoma and the dissection of the integuments was extended almost to the ear. The flap was stretched and attached to the root of the nose by interrupted sutures. It was cut of the proper shape to adapt itself to form the lost half of the nose, and then was attached to the whole length of the side of the nose, and also the lip. It was also fixed to the lower eyelid by several sutures. The cheek was filled up with a large piece of linen soaked in carbolic acid and oil, and carbolic acid water dressing was applied externally to the whole wound. The patient walked to bed after the operation, saying that she was not weak, and did not suffer any pain. In one month's time the wound had healed, leaving scarcely any disfigurement, much to the satisfaction of the patient, who could not be persuaded that the disease would certainly recur.

Medicine.

ON THE RIGHT USE OF DISINFECTANTS. (8).

By H. Letheby, M.B., M.A., etc., Professor of Chemistry in the College of the London Hospital; Medical Officer of Health and Public Analyst for the City of London; and President of the Society of Medical Officers of Health.

I am induced, gentlemen, to bring this subject under your consideration for the purpose of removing the many dangerous fallacies which beset it, and of arresting, if possible, the unblushing quackery which disgraces it. A glance, indeed, at the so-called sanitary literature of the day will show how boldly and how confidently the use of certain inert bodies is recommended to the public as powerful disinfectors. The danger of this, gentlemen, cannot be overrated; for when by such means undue confidence is placed

in the disinfecting power of an agent which fails in its purpose, the result is not merely a waste of materials and a loss of valuable time, but it is also a serious danger to the public. Therefore it is that we should be most careful in the selection of disinfectants—using those only which are known to be effective. It is necessary also that we should be thoroughly conversant with their several modes of action, and that in applying them we should be guided by rational principles suggested by the scientific aspects of the subject.

It is hardly necessary to say that the question in all its relations is very large and extensive ; for by the term "disinfection" I mean the removal, or neutralization, or destruction of that which is offensive to the senses or hurtful to the body, limiting it of course to those cases where offensive effluvia, or noxious matters, or specific contagia are the subjects of treatment ; and here I may remark that, although the questions before us are undoubtedly connected with the difficult problems now occupying the attention of physiologists, pathologists, and chemists as to the origin of infusorial life, and the cause of specific infectious maladies, as well as of organic decomposition, yet it is at the same time sufficiently independent of these abstruse inquiries as to be capable of very effective practical treatment at our hands, without much reference to the conflicting theories of genesis. To us, indeed, it is of little importance, except to the scientific elucidation and explanation of our empirical facts, whether the manifestations of life in a decomposing liquid be the *cause* of putrefaction and fermentation, or the *effect* of it ; and whether it comes "*ex vivo*"—that is, from pre-existing life, as the Biogenists, the Homogenists, and the Panspermatists believe ; or "*de novo*," as the Abiogenists, the Heterogenists, and the Non-Panspermatists maintain. Nor does it concern us in our practical treatment of the subject whether each distinct kind of spontaneous organic decomposition and each specific form of infectious disease are the results of the vital manifestations of special germs —differing in each case—or whether they are caused by the

molecular movements of organic matter in peculiar states of decay; for that which we aim at, and which we undoubtedly are able to accomplish, is the destruction or prevention of the hurtful thing which causes offence or produces disease. And as in many cases this is associated with the changes incidental to organic decomposition,it may be effected in one of four ways—as, first, by strengthening the affinities of organic substance, and thus enabling them to resist decay; secondly, by so acting upon them with chemical agents as to produce new compounds which are not susceptible of organization or decay; thirdly, by hurrying on the changes of decomposition and oxidation, so that the particles may quickly arrive at their final stages of decay, and be brought to rest; and fourthly, by the use of special agents which are found to have specific powers of disinfection.

As examples of the first of these methods of preventing decay I may allude to the effect of cold and to the desiccation of organic matters.

As instances of the second I will refer experimentally to the coagulation of albuminous matters by alcohol, creosote, the mineral acids, and most mineral salts,

Under the third head are the oxidising influences of chlorine, hypochlorous acid, permanganate of potash, and atmospheric air, aided by water and porous substances.

And as examples of the fourth method of disinfection I may allude to sulphurous acid, to carbolic and cresylic acids, and to the volatile oils.

The relative value of these several disinfecting substances have again and again been tested by experiment. As far back as the year 1858 I entered very fully into the question of their action on sewage; but very recently they have been examined by Dr. John Dougall, of Glasgow, and Dr. Crace Calvert, of Manchester, with the view of ascertaining their respective disinfecting powers, as tested by their action on protoplasmic and fungus life, and on vaccine lymph. I have tabulated the principal results of these experiments, and submit them to you for examination. Let us therefore

discuss them in the order in which they are there placed :—

1. The Mineral Acids.—These are *Sulphurous Acid, Nitric Acid, Hydrochloric* or *Muriatic Acid, Sulphuric Acid,* and *Chromic Acid.* This is the order in which Dr. Dougall found they prevented the development of infusoria in infusion of hay, in uriue, and in a mixture of beef-juice and egg albumen—sulphurous acid being the least effective, and chromic acid the most ; for in the first place as much as one part of sulphurous acid in 117 of water was required to prevent such life during six days, while in the last case as little as one part in 2200 of water was sufficient. A like conclusion was arrived at when a solution of one part of the substance in 500 of water was used with a little beef-juice or egg albumen. Dr. Crace Calvert, however, found that sulphurous acid was more powerful in its action than nitric or sulphuric acid when used in the proportion of one part in a thousand of solution of albumen, for in the case of sulphurous acid it required eleven days to produce vibro-life and twenty-one days for fungus life, there being no putrid or mouldy odour for more than forty days ; whereas with the like proportion of nitric or sulphuric acid the existence of such life was observed on the ninth and tenth days. In all cases the addition of these acids in small proportions, as from 1 to 2 per cent., to putrid matters swarming with animalcules immediately arrested life. In like manner the vitality of vaccine lymph was completely destroyed by the vapours of these acids. It would seem, therefore, that they are all powerful disinfectants, and this accords with experience ; for as far back as the year 1773 Guyton Morveau, one of the most distinguished chemists of France, recommended muriatic-acid vapour as a means of disinfecting hospitals ; and in 1797 Dr. Carmichael Smith obtained a Parliamentary grant of £5000 for the successful use of nitrous fumes in the disinfection of our prisons. But sulphurous acid enjoys a reputation of much more ancient date. Homer tells us that Ulysses, after destroying the

suitors, fumigated the rooms in which the bodies lay, as well as the rest of the palace, with the fumes of "pest-averting sulphur." Ovid, too, in the "Fasti" speaks of the cleansing and purifying power of sulphur; and Pliny, in his "Natural History," says "that brimstone is employed ceremoniously in hallowing of houses, for many are of opinion that the perfume and burning thereof will keep out all inchantments —yea, and drive away any foul fiends and evil spirits that do haunt the place." The Chinese have always attached considerable importance to the action of burning sulphur as a disinfectant, and have from time immemorial used pastilles of sulphur for internal fumigation, and squibs and crackers for external.

In the act of generating the gas by burning sulphur in atmospheric air, thirty-two parts of it by weight combine with the same weight of oxygen to produce sixty-four parts of sulphurous anhydride, which occupies precisely the same bulk or volume as that of the oxygen consumed. The density of the gas is considerable, for its specific gravity is 2·247, or very nearly twice and and a quarter that of atmospheric air; a cubic foot of the gas, therefore, weighs a trifle less than 1206 grains, and it takes 603 grains of sulphur and a cubic foot of oxygen, representing five cubic feet of air, to produce it. Its chief characteristic is its powerful odour; for as little as one part or volume of the gas in 100,000 volumes of air is readily discoverable by the nose; nine parts of it in 100,000 of air are disagreeable, and provoke coughing; twenty parts of it in that quantity of air are powerfully irritating; and forty-three parts of it in 100,000 of air, or rather more than four parts in 10,000 of air, are actually irrespirable, and a much smaller quantity than this will rapidly kill plants. Water absorbs from forty to fifty times its bulk of the gas, and produces a solution of powerful antiseptic and disinfecting properties. The same is the case with the combinations of the acid with alkalies forming the sulphites and bisulphites.

2. The Organic Acids—as—*Carbolic, Cresylic, Acetic, Picric,* and *Benzoic Acids*—are all disinfectant and antiseptic. According to Dr. Dougall, the most powerful of them is benzoic acid, for as little as one part of it in 533 of water will prevent the appearance of infusorial life, whereas as much as one part of acetic acid in 125 of water is necessary for this purpose. Carbolic acid occupies an intermediate position for it requires one part of the acid 267 of an orgaaic solution to arrest the development of animalcules for six days; moreover, according to Dr. Dougall, the addition of one part of carbolic acid to 200 parts of a solution swarming with infusoria had no injurious action on them, although the like proportion of picric or cenzoic acid was immediately fatal to them. So also with respect to vaccine lymph: air saturated with the vapour of carbolic acid at ordinary temperatures had no destructive effect on its vitality after exposure thereto for twenty-four hours; and even when mixed with the lymph in the propostion of 1 per cent., and allowed to dry, the activity of the virus was not impaired. Pettenkofer, indeed, has shown that although carbolic acid will arrest the development of ferment cells, it does not destroy their vitality; for if after such treatment they are freely diluted with water, they again start into activity. Its antiseptic power, however, is evidently great; for aecording to Dr. Crace Calvert, the presence of one part of the acid in 1000 of an organic solution will check decomposition and prevent the appearance of vibro or fungus life for more than forty days. At the Morgue in Paris, where the acid has been freely used, Dr. Devergie found that in hot summer weather one part of Carbolic acid [No. 5, which contains 85 per cent. of carbolic and cresylic acids] in 1900 of water, freely applied to the dead bodies, completely prevented putrefation; and even when diluted to the extent of one part in 4000 of water the effect was most marked. In my own experiments in the city of London I have noticed that a very small quantity of carbolic acid in the sewers prevented decomposition, and that a solution of 1 per cent. of it upon meat arrested putrefaction.

Specimens of the acid are upon the table, there being several varieties of it in commerce for different purposes. The pure acid is a camphor-like solid, which fuses at 95° F. and boils at 366 o F., the boiling point of cresylic acid, with which it is commonly associated, being 397 o. It is not very soluble in water—only to the extent of about 3 per cent.—but it is freely soluble in alcohol, ether and glycerine. It has no acid reaction on litmus paper, although it combines with the alkalies to form salts. A good test, indeed, for the purity of carbolic acid is the solubility of five parts of it in one part of caustic soda dissolved in ten of water. You have seen its powerful coagulating action on albumen, and I hardly need say it is an energetic caustic.

The commercial preparations of it are—1, the pure crystals for medical use; 2, the fluid crystals of the British Pharmacopœia strength for surgical purposes; 3, the loose crystals for disinfection; and No. 4 and No. 6 for commoner purposes. The last-named variety, as prepared by Messrs. Calvert and Co., is guaranteed to contain 85 per cent. of carbolic and cresylic acids, free from tar oils and sulphuretted hydrogen, and this is well suited for all the commoner kinds of disinfection. It may be used in the proportion of half a pint of the acid to two gallons of water, and if the odour is objectionable, the purer quality, No. 4, may be employed. Other proparations of it are "*the powder*" (carbolate of lime), which should contain at least 15 per cent. of acid as shown by the neutralisation of the lime with hydrochloric acid; "*McDougall's fluid carbolate*," which is the acid in neutral combination;" "*Cliff's antiseptic liquid*." which is a solution of the acid in soap; "*Westerton's patent zymotic fluid*," which is a mixture of carbolic acid, pyroligneous acid, and ether, with a little scent; and there are several kinds of carbolic acid and coal tar soaps. But it is best to avoid these nostrums and rely on the action of the pure or nearly pure acid.

3. The Alkalies—*Lime, Potash, Soda,* and *Ammonia* are not very powerful disinfectants unless they are used in a somewhat concentrated state, when they are useful for detergent purposes and for the destruction of organic matter. Cream of lime, for example as well as a strong solution of potash and soda, may be advantageously employed in cleansing rooms, stables, cattle-sheds, slaughter-houses, etc.; and powdered lime, sprinkled freely about cellars, church vaults, cattle lairs, etc., will absorb moisture, carbonic acid, etc., and help the oxidation of organic matters. Added to sewage in the proportion of from ten to twenty grains per gallon, it combines with the carbonic and phosphoric acids, forming a flocculent precipitate which rapidly subsides, and carries with it all suspended matters as well as a notable proportion of soluble organic matter. It likewise kills the infusoria of sewage, and checks the decomposition of it for several days.

4. The Haloids.—The most important of these are *Iodine, Chlorine, Chloride of Lime, Chloride of Zinc, Chloride of Aluminium, (Chloralum)* and *common Salt, Iodine* is not of much practical importance, although it has been recommended for use in the sick-chamber. *Chlorine,* however, is a powerful disinfectant, and has been used with considerable success from the time (1791–92) when Fourcroy, the distinguished French chemist, proposed it as a fumigating agent. It is easily prepared by adding black oxide of manganese to strong muriatic acid—using about a quarter of a pound of the former to half a pint of the latter in a basin or dish,—frequently stirring the mixture and, if possible, heating it. It is also produced by the gradual addition of muriatic acid to permanganate of potash (Condy's fluid); and this, indeed, is very like the preparation now advertised under the name of *chlorozone*—the muriatic or hydrochlorous acid having been added in comparatively small proportion. Chlorine is a heavy gas, its specific gravity being as nearly as possible two and a half times

that of atmospheric air. It is extremely irritating, and, like sulphurous acid, cannot be effectively and safely used in the sick-chamber except for sweetening the air, as the quantity necessary to disinfect is irrespirable, The same is the case with chloride of lime, when its acid (hypochlorous) is set free by carbonic or muriatic acid, as it must be to become an effective aerial disinfectant. In proper proportions, however, both of these agents are powerful disinfectants, as they not only check putridity and the development of and the animalcles in organic solutions, but they also kill such creatures when added in the proportion of about 4 per cent., and they destroy the vitality of vaccine lymph. Like other agents which favor oxidation, they actually promote decay and the generation of infusorial life when used in small proportion. To disinfect with chlorine, therefore, or with hypochlorous acid, the chamber must be vacated, so that the air may become charged with at least 1 per cent. of these agents, and then the destruction of the miasm or contagium is insured. A solution of chloride of lime in the proportion of one pound to two gallons of water, [5 per cent.] is useful for washing floors, etc., but it must be used cautiously for the disinfection of clothing, as solutions of this strength act injuriously on animal tissues, although they are not so hurtful to vegetable fibres.

Chloride of Soda (Labarraque's liquid) is a compound homologous with chloride of lime, and it enters into the composition of Watts's chlorinated soap ; but, as it rapidly undergoes decomposition, the antiseptic power of the soap is *nil.*

Chloride of Zinc [Sir William Burnett's fluid] is a liquid which ranges from 1309 to 1594 of specific gravity—the former containing about 30 per cent. of the chloride, and the latter about 54, Its action is evidently due to its power of coagulating albumen, and of absorbing ammonia and sulphuretted hydrogen. Used in the proportion of one part of the chloride to 300 of water it instantly destroys

infusorial life, and even when diluted so as to contain but one part in 1000 of an organic liquid it checks decomposition, and prevents the appearance of animalcules and fungi for more than forty days. Its chief use, however, is as a disinfectant of fœcal matters; for it has no power as an aerial disinfectant, and is too corrosive in its action for textile fabrics.

Chloride of Aluminium or *Chloralum*, which is a solution containing about 15 per cent. of the salt, appears from the researches of Dr. Dougall, to be powerfully antiseptic, for when used in the proportion of only one part of the substance to 933 of water it prevented the development of animalcules for six days. Dr. Crace Calvert also found that an organic solution containing one part of chloralum in 1000 of the solution did not exhibit vibrio life until after ten days. In another experiment, however, with albumen and starch-paste —each containing 2 per cent. of the substance—decomposition with offensive odour began in nine or ten days; and in my own researches I found that putrefactive decomposition could not be prevented with less than 4 per cent. of the substance. In the illustrations before you, you will notice how ineffective it is in checking putrefactive decomposition. Moreover it is not an aerial disinfectant, and is therefore worthless in a sick-room; and with regard to its deodorising power it manifestly does not contain anything which is capable of absorbing putrid miasms. Like common alum, however, and crude sulphate of alumina, it is a good precipitating agent for sewage, and when combined with the action of lime it thoroughly defecates such matters.

5. Mineral Sulphates—as *Sulphate of Zinc, Sulphate of Iron, common Alum*, and *Sulphate of Copper*, as well as the waste solutions of metallic salts from wire-working, iron-galvanising, lacquering, etc.—are useful disinfectants when the object is to coagulate albuminous matters, and to destroy living organisms, as well as to neutralise offensive miasms.

Each of these substances will prevent the manifestation of infusorial life in organic solutions containing from one to four parts of the salt in the 1000 ; and a solution composed of from one to two pounds of the substance in a gallon of water is a good disinfectant of drains and of fecal matters directly they are discharged from the body. Mudie's disinfectant is sulphate of iron or green copperas, which is the cheapest of all these substances. None of them, however, can be advantageously used as aerial disinfectants, as they are not in any case volatile.

6. *Permanganate of Potash* and *Chlorozone* are both oxidising agents, and do not appear to exert much action on vital manifestations, but they are very active in the destruction of dead organic matter. The use, therefore, of these agents in the sick-room as disinfectants is altogether fallacious, for we have no reliable evidence of their power of destroying contagia. The sheet, indeed, saturated with Condy's fluid, which is recommended to be hung up in the sick-chamber, will quickly, like other dead organic matter, decompose the fluid and render it inert. This property, however, of attacking and oxidising dead and decaying organic matter gives it value as a means of purifying potable water, and for this purpose it is alone useful. The same may be said of chlorozone, for the small quantity of free chlorine present in it is not capable of much energy of action.

7. The Volatile Oils—as *Camphor, Turpentine*, etc.—are probably effective to some extent, for we not only perceive that they hinder the development of animalcules and fungi, but they also generate ozone ; for ages, indeed, these substances have enjoyed a high reputation as trustworthy disinfectants and deodorisers. They are the correctives universally employed in religious worship, and from time immemorial they have entered into the composition of the ointments of the high priest and the incense of the altar. Among eastern nations the practice of fumigating the house

with costly spice and rich-smelling drugs has been contemporaneous with history, During the middle ages, when the plague, the black death, and the sweating sickness decimated the cities of Europe, immense importance was attached to these agents as disinfectants. The advice of the learned Dr. Caius, who wrote of the sweating sicknes in 1552, was to " have always your handkerchief perfumed with a mixture of spices for your nose and your mouth, both within your house and without, and in your mouth a piece either of setwel or of the root of *Emula campana* well steeped before in vinegar roseate, or a mace, or berie of juniper. In want of such perfumes, as before said, take of myrrh and dried rose-leaves, of each a like quantity, with a little frankincense, for the like purpose, and cast it upon the coals, or burn juniper and their berries." Until very recently, too, the practice in our criminal courts was to lay a bunch of rue on each side of the prisoner, to prevent the spread of contagion brought from the infected gaol. Now, it is a curious fact, as I will show you experimentally, that the oxidation of perfumes and volatile oils is generally accompanied with an active ozonisation of the atmosphere—indeed, Professor Paolo Mantegazza, of Pavia, who has carefully investigated this subject, says that this is a very convenient method of obtaining ozone: for under the influence of light [especially solar light] and air, the essential oils, even in small quantities, will ozonise comparatively large proportions of atmospheric oxygen. It may well be, therefore, that the volatile oils and essences deserve the reputation they have so long enjoyed as purifying agents ; and that the recommendation of Empedocles, to plant aromatic and balsamic herbs about your house as preventives of pestilence, is supported by scientific as well as empirical facts. Moreover, as benzoic acid is a large constituent of the incense used in the Latin and Greek churches, it is possible, looking at its antiseptic powers, that this also may be useful as a disinfectant.

(To be continued.)

HOSPITAL REPORTS.

Case of Senile Gangrene. — Death. — Thomas Whelan, aged 70 years, well known in Montreal for many years as a cab-driver, applied for admission on account of a slight erysipelatous blush on the right shin. It appeared to be a very trifling matter, so much so that the attending physician hesitated to admit him, and he was, indeed, taken in more on account of his general debilitated condition than for the disease of which he complained. He was ordered the ordinary Goulard's lotion and good nourishing diet. The redness of the shin had disappeared on the third day, but he appeared more helpless than ever, and not any stronger. One cold night, on going to the closet without slippers or stockings, he caught cold, and an attack of pneumonia of the right base followed. The disease, however, never assumed a very active form, and remained in the base of the lung. For this, counter irritation with iodine tincture was employed, and a mixture used of carbonate of ammonia and senega extract; wine was also given somewhat freely. He became weaker, however, and was often delirious, and occasionally, even in the day-time, he would talk strangely.

On about the twenty-fifth day after admission, and when the lung trouble was resolving slowly, the nurse drew attention to a remarkable condition of the fourth toe of the right foot. This, on examination, was found to be quite cold, black, and, in a word, gangrenous. The old man never knew of the state of things until it was pointed out to him, and from this fact it is clear he suffered no pain or uneasiness in the member while this morbid change was taking place. Being of an inventive turn he very soon had a number of theories propounded to account for the phenomenon, among others, and certainly the most rational, that the same toe had been frost-bitten some three years

before, and that he had since experienced at times odd sensations it. There is little doubt that the mortification had been going on for some little time before noticed, but it certainly extended with alarming rapidity, as will presently be seen. On the third day after the nurse discovered it the toe was removed with a pair of scissors, and the gangrene had extended fully half an inch beyond the metatarsophalangeal articulation. The third toe was noticed to be slightly discoloured on its outer side.

As to treatment—Charcoal poultices were applied to the foot ; eight ounces of whiskey were ordered to be given in the twenty-four hours ; and the following dose every fourth hour : Quinæ sulph. gr. j., sol. morph. mxv. That the heart sounds were weak, and the entire arterial system the seat of atheromatous degeneration, were facts long known in connection with the case, but it was not discovered until now that neither dorsalis pedis artery nor posterior tibial could be felt in either foot. The veins of both legs were varicose. The vessels throughout had the peculiar ipecacuanha root feel so characteristic of that form of degeneration. Within a week from the removal of the toe first diseased, the third and fifth had also to be amputated by simply cutting the tendons. The pulse was now always weak, irregular and frequent, ranging from 110 to 130 ; tongue dry ; lips and teeth covered with sordes ; a pinched appearance of countenance ; extremities cold and blue ; a slight trace of albumen in urine ; sp. gr. 1016 ; bowels inclining to be relaxed. The gangrene continued to extend until all the toes came away, and thence upwards to the tarso-metatarsal articulation. Vomiting and diarrhoea became troublesome complications and at length the patient died of what appeared to be asthenia as much as anything else. He lived just six weeks after the gangrene was first seen. Before death the other foot, the hands and ears became exceedingly dark in colour and would all no doubt have ultimately taken on the same gangrenons action.

An autopsy was not held.

The above case is interesting and instructive from many points of view. This question, for instance, might be asked; could the trifling erysipelatous inflammation of which he first complained have had anything to do with the subsequent sudden plugging of the vessels. Again why was this fourth toe the first victim? The frost bite may serve fairly enough to account for this phenomenon, leaving that toe a weaker member than the rest. The case differs also from those of ordinary senile gangrene in the almost total absence of pain. The question also arises as to whether the attack of pneumonia may not have assisted materially in bringing about the gangrenous action indirectly by the interference with the circulation produced by the inflammation. The gangrene appeared to have the characters of both the dry and moist variety. As the foot became involved the gangrene assumed more of the moist variety.

Case of Compound Comminuted Fracture of Bones in Leg. — Recovering with useful limb. — L. C. a French Canadian carter aged 43 years, stout, of intemperate habits, was brought to Hospital and placed in one of Dr. Drake's wards. On examination there was found about the middle and front part of the right leg, a wound upwards of four inches in length, and through the centre of this protruded a portion an inch and a half long, of the tibia, chiefly the crest. There was also a small but deep wound through the fleshy portion of the anterior tibial region. It was found impossible to return the protruding portion through the opening, and consequently about three quarters of an inch were snipped off with a bone forceps, when the remainder could be readily put back, and placed in pretty fair position. The openings were now thoroughly syringed out with a solution of carbolic acid of the strength of 1 x 20. Three or four fragmentary portions of the tibia were removed with the fingers, and the wound then brought together by interrupted wire sutures. The fibula was broken trans-

versely a little higher than the tibia. The accident had occurred, by the man in stepping from his cab, placing his foot between the spokes of the wheel instead of on the steps or axle as he intended, and the horse starting forward, he was thrown down and dragged for some distance, his foot remaining entangled. The limb was put on a McIntyre splint and the wounds dressed with weak carbolic lotion. In forty eight hours the tension, from inflammatory effusion became so great that the sutures had all to be removed from the wound and poultices substituted for the carbolic dressing,—a change decidedly for the better,as the parts had already assumed an almost erysipelatous aspect.

An interesting feature in the case, especially considering the favourable results, is in the fact that the man was a notoriously hard drinker. He positively asserts that it was not an uncommon practice with him to consume a pint of whiskey before eating his breakfast in the morning. He never took breakfast without taking at least a couple of gills, and for the past fifteen years had not known what it was to be satisfied with less than a pint of whiskey in the twenty-four hours. His wife and brother confirm all his statements in this connection. With such a history it is needless to say that his grog was not suddenly cut off on entering the hospital with such a serious accident, but on the contrary six ounces of whiskey was ordered in the twenty-four hours, with abundance of beef juice and milk.

On removing the sutures the wound gaped considerably and exposed some of the bone, which latter however became rapidly covered over with granulations. An occasional fragment of bone would slowly make its appearance on the surface and be removed, preceded, however, as a rule by a feeble attempt at the formation of an abscess over the threatened place of exit. With this exception nothing occured to interfere with the process of healing, his health remained excellent. As to the stimulant after a week the quantity of whiskey was reduced by one ounce every second day, until the end of the third week he became a

total abstainer, and this not through force of circumstances, but by honest conviction, as he declares that he will never again, of his own free will, "touch, taste, or handle."

At the end of the eleventh week the splint was removed, and a glue bandage supplemented with an outside paste board splint, immediately applied. A corner of the wound had not yet quite healed, so that it became necessary to make a trap door in the hardened glue splint, through which to dress this part.

During the thirteenth week the patient went to his home in one of the suburbs with orders to keep on the glue bandage for a fortnight longer.

Powdered Coal-Tar for Wounds.

M. MAGNIS-LAHENS, of Toulouse, adds charcoal to the coal-tar (33 per cent. of the latter), and thus obtains a light and porous powder, which does not irritate wounds, and which is easily washed off with cold water. This combination is a very useful mixture of two antiseptic substances. The charcoal absorbs the gases formed by fermentation, coagulates the albumen, and prevents its decomposition; thus effectually assisting the carbolic acid contained in the coal-tar. Some wounds do not bear powdered applications; for these, 100 parts of the powdered coal-tar should be allowed to macerate for some hours with 400 parts of spirit, and filtrated. The spirit should be of only 18° Cartier, as a stronger would dissolve the resins. As coal-tar principally acts through the carbolic acid it contains, the above-mentioned maceration may be replaced by the following solution: crystallised carbolic acid, 1 part; spirit (at 18° Cartier), 99 parts. This solution is cheap and very effectual.—*Lancet.*

Reviews and Notices of Books.

Laceration of the Female perineum, and Vesico-Vaginal Fistula; their History and Treatment. By D. Hayes Agnew, M. D., Professor of Surgery in the University of Pennsylvania, with numerous illustrations, 8vo. pp. 140. Philadelphia, Lindsay and Blakiston, 1873.

This monograph which treats of two of the most distressing accidents to which the parturient woman is liable, consists principally of material which has already been placed before a limited medical public,—the first portion having been published in the Pennsylvania Hospital Reports, and the second in the Medical and Surgical Reporter, edited by Dr. Butler. But, owing as stated by the author to repeated applications for copies of these papers, he has thought it proper to place them before the profession in their present form.—They are certainly valuable to any one interested in gynæcology: they contain a very full history of the gradual advance in medical knowledge which has been made in both those troublesome complaints, and at the same time very copious bibliographical references are given which may be of great service for scientific purposes. —We do not find that there is anything in these essays which can really be called new, for in neither does the author's mode of operating differ in any material point from that of others who have preceded him—nor indeed is any more than this laid claim to. But whilst not possessing the agreeable excitement of novelty to recommend it, yet the work is very acceptable as embodying the personal experience of such an accomplished operator as Dr. Agnew in the performance of two operations requiring the possession of considerable manual dexterity, and the observance of many minute and wearisome details.—

With reference to lacerations of the perineum, after reviewing the variously modified operations practised for its cure, the author concludes by giving the preference to the interrupted suture with shot, over the quilled suture, and believes that in all cases a cure can be effected without the necessity of dividing the sphincter ani muscle as formerly recommended by Dr. Baker Brown.—A series of cases successfully treated in this way are recorded.—For vesico-vaginal fistula Dr. Agnew has operated about 60 times with 3 deaths, all of which were from some kind of septicæmia and are attributed (no doubt justly) to an impure hospital atmosphere.—Besides these, 4 or 5 failures—an amount of success which is very gratifying.—Dr. A. operates after the manner now so well known as that of Marion Sims to whom of course full credit is given—minute directions being furnished concerning those many points the careful observance of which it often is that tends so much to promote our ultimate success.

A Hand-book of the Theory and Practice of Medicine. By Frederick T. Roberts, M.D., B. Sc., M.R.C.P., Fellow of University College, Assistant Physician, and Assistant Teacher of Clinical Medicine, University College Hospital. 8vo., pp. 1052; Philadelphia, Lindsay & Blakiston, 1874.

A new text book on the Theory and Practice of Medicine, one would suppose it a difficult task to attempt at the present day, to embody all that is essential to know on this vast subject within the scope of a single volume. When we see an entire volume devoted to a single department of the theory and practice of medicine, to even the consideration of a single disease, of the many which come before the physician, it does seem a most difficult task to accomplish, the writing of a book on Theory and Practice of Medicine which will be readable, concise, and contain the essentials of the art.

Dr. Roberts intends his book mainly for students, his object being to give in a single volume such information as is necessary for those preparing for examination, and also to guide them in the acquisition of that Clinical knowledge so essential to the practitioner, and which can alone qualify him for the active duties of his profession. The author expresses a modest hope that the contents of the work will be, in some measure, found of service to the busy practitioner who may have but few opportunities for perusal of larger treatises or special monographs.

This work is divided into three sections : In section one, we have three chapters ; an excellent introductory chapter, showing the importance of a proper system of training. The mistake of walking through the wards of an hospital without some system of observation, or case taking, is fully explained. The necessity of a previous knowledge of disease or the theory of disease, is fully illustrated, and then the author proceeds to the method of case taking, mentioning in outline what is necessary to observe and record,—but not only does our author advise the careful noting of cases, he likewise recommends commentaries to be made on each case by the student, the advantages of which cannot be over-estimated. In chapter ii. of this section, the subject of causation of disease, is discussed, and chapter iii. is devoted to symptomatology. These are necessarily concise, but afford much useful information which is not to be met with elsewhere in the same clear and concise style. In the second section the author takes up certain morbid conditions which come properly under the heading of "General Pathology," of which he considers it necessary to possess a comprehensive knowledge before studying them in connection with special diseases, such as Hyperemia, Dropsy, Hæmorrhage, Inflammation, Hypertrophy, Atrophy, Degeneration, and Fever ; to each of these subjects the author assigns a chapter.

Section III. is divided into two parts ; in the first is considered general diseases which affect more or less the

entire system, and although local morbid conditions are sometimes present, yet they arise secondarily as an accidental consequence of the general disorder. The second part of this section is devoted to the consideration of Local Diseases, or the various affections of the organs and tissues of the body. The classification and arrangement of this portion of the work, as also the nomenclature, is in accordance with that recognised by the Royal College of Physicians.

There is one peculiar feature of this work, which, in our opinion, most materially enhances its value. The author before entering on the description of individual diseases, gives a general outline of the Clinical phenomena bearing on the disease or its class, and also on the method of clinical investigation—for instance on the subject of acute Febrile cases. The necessity of arriving at a correct diagnosis as soon as possible is shewn. The special points to be observed are given, and then the value of Thermometric observation is fully discussed. This portion of the work is in smaller type, but as the author observes in his preface, this does not imply that it is of minor importance.

We confess ourselves most favourably impressed with the excellence of this work, we think the author has performed his task most creditably, and we cordially recommend this book to our readers. To the Student of Medicine it will be found a most valuable text book, and the busy practitioner will benefit materially by its perusal. The work is most beautifully printed, on excellent paper well impressed, and is got up in the best style of the well-known publishing house of Messrs. Lindsay & Blakiston ; it is to be had of Messrs. Dawson Bros., St. James street.

CANADA
Medical and Surgical Journal.

A SMALL-POX HOSPITAL.

Who will gainsay the dictum that Small Pox is an eminently contagious disease.—Few men there are who will willingly and unnecessarily expose themselves to the contagion of that disease—so long as we are not personally inconvenienced by the result of exposure to the contagious nature of such a disease as Small Pox, so long do we consider ourselves safe by simply withdrawing into our shell —Such appears to be the action of our civic authorities.—Such we regret to say appears to be the action of the authorities of our Montreal General Hospital, and such appears to be the action of the community at large.—As to the civic authorities, they have in this matter so far shown themselves unworthy of the confidence of their fellow citizens. Two years ago, the subject of isolation in Small Pox was fully discussed, and Mr. Councillor this and Mr. Alderman that relieved themselves of much froth.—Resolutions were passed, the Health Committee were instructed to seek an interview with the authorities of our Hotel Dieu and the English Hospital,—they were directed to personaly seek out a site, whereon to build a Small-Pox Hospital,—cabs were put in requisition and the Committee took on various occasions an airing, but such a thing as a site whereon to build an Hospital still remains in the womb of time.—The Montreal General Hospital some years since, put up on their grounds a fever hospital which is a separate building, it was deemed at the time perfectly safe to the other inmates, to permit Small Pox patients to be placed in this isolated building. Soon however the contagion was found to spread, and cases originating in the wards among

the other patients became too common, life was sacrificed, and the committee of management at length determined to exclude the infected. Then the clause of the vaccination act was cited and brought to their notice, which reads thus :—1. "No warrant shall hereafter issue for the pay- "ment of any sum of money granted by the Legisla- "ture to any Hospital, unless, nor until, a certificate, "signed by a medical officer of such hospital, to the effect "that, there is in such hospital a distinct and separate "ward set apart for the exclusive accommodation of patients "afflicted with Small Pox, has been filed with the clerk of "the Executive Council."

It was argued that this clause virtually prevented the authorities of the Montreal General Hospital from closing their doors to Small Pox patients, inasmuch as being a corporate body and in the receipt of a public grant they could not legally refuse such cases.—This opinion we believe has been given by two of our learned counsel at the bar, and possibly may be the reading and meaning of the clause.—It would be time lost for us to try and explain the object and meaning of that clause ; to ascertain its actual meaning we require to look at the custom which had prevailed in our Hospital administration prior to the passing of that act.—It is well known that before that eminently practical paper by the late Sir J. Y. Simpson, on the stamping out of Small Pox saw the light, many hospitals admitted Small Pox patients into their wards—and we have seen ourselves, in several hospitals little or no isolation of these cases.—Necessarily this led to the spread of the disease and many lives were sacrificed.—The epidemic of 1860 and 1861, caused alarm, and the Legislature in order to enforce what they considered sufficient isolation; passed the clause cited.—It was not that they deemed it necessary to have a Small Pox ward attached to each Hospital—but that it must be separate and distinct.—Cannot any one see the actual meaning of this clause ? If not, let them search out the debate which took place on the

occasion of the passing of that act.—Had the Legislature of that day contemplated that in the case of our Hospital, some hundreds of lives are unwarrantably exposed to a fell and loathsome disease every year—the clause would have run somewhat differently. But, to the remedy, may we not ask our Legislature to relieve us of this absurd clause—which is a blot and stain on our statute book—To the public we say, shake off your apathy, you are interested and proud of that noble charity the Montreal General Hospital.—It has become an institution with which the country at large is identified.—Do not permit its usefulness to be tampered with, the city is increasing in all its borders, the poor of the city have but this hospital alone, which bears the name of a public charity to go to for relief, let not the poor and the sick, the halt and the blind, be forced to accept the benefit of this charity, and at the same time be exposed to the serious risk of contracting within its walls a horribly loathsome disease, one which will place their lives in jeopardy or if they escape with life, may leave the dregs behind of disease from which they may never recover.—The scheme of the city council of giving a subsidy for the building of a Protestant, and a Roman Catholic Small Pox Hospital, to be two separate and distinct institutions, under separate management, is beneath notice.

THE CANADA LANCET.

It was with regret we were forced, in self defence, to call attention to the acquisitiveness of our contemporary the *Canada Lancet*. We are sorry to observe that in place of acknowledging its error, the *Lancet* attempts a justification of the wrong. The Editor in accounting for his having in the most bare-faced manner, published among his original articles, two communications which had appeared in our journal months before, accuses us of being systematically late. In explanation further on he says, that some time

in August he received from Dr. Howard printed copies of the articles in question. One of these articles was a reprint from the type of the July No. of the *Canada Medical and Surgical Journal*, and yet the Editor of the *Canada Lancet* has the effrontery to say that he did not receive this July number until after his September number was issued. We can only state that the July number of the *Canada Medical and Surgical Journal* was mailed in Montreal on the 8th day of July, 1873, so that if the *Canada Lancet* did not receive its copy before the month of September, it must have remained conveniently unopened, or probably in its drawer in the Toronto Post-office.

GRATIFYING TESTIMONIAL.

It is not often that communities acknowledge their indebtedness, for services rendered, to members of the Medical Profession. As a rule individuals pay their doctor after all other liabilities have been satisfied, that is if anything be left over, if not the doctor can go without. It is therefore refreshing to meet with an action such as we record below, more especially when it is known that the recipient was worthy of such a graceful acknowledgment. We congratulate our old friend Dr. Worthington on this tangible recognition of his valuable services to his fellow-townsmen. We copy from the *Sherbrooke News* of the 4th Dec., instant:—

PRESENTATION.

On Monday evening a number of the friends of E. D. Worthington, Esq., M. D., met at his house to present him with a handsome English gold hunting watch as a testimonial of their appreciation of his services in the timely discovery of the existence of small pox in the town last spring, and of his exertions in the adoption of means for preventing the spreading of that foul disease.

The occasion chosen for the presentation was the Doctor's birthday.

The address was read by E. T. Brooks, Esq., M. P., who supplemented the expressions of regard therein, by a brief personal recognition of the professional career of the Doctor during his thirty years of practice in Sherbrooke.

The address is as follows :

To Edward D. Worthington, Esq. M. D.

Sherbrooke, Que.

We the undersigned, residents of the Town of Sherbrooke and vicinity beg to tender you our most sincere thanks for the great public service, rendered by you professionally to this community in May last, by which the existence of that fearful epidemic—the Small Pox—then in our midst—but unknown to us—was discovered, and such steps were,—by your instrumentality taken,—as prevented the spread of the disease amongst us ; and as a slight token of our appreciation of your services, ask you to accept the testimonial which we have caused to be procured for that purpose.

We have no hesitation in saying that—but for the prompt and efficient action taken by you at that time—that dreadful disease, must and would, in all human probability, have spread throughout this community and the result have been most disastrous.

We cannot refrain from expressing our belief, that your action was solely prompted by a desire for the public good and the safety and welfare of the people amongst whom you have, for so many years, practiced your profession with marked success ; and whose esteem and affection you have won by your invariable attention and kindness.

You will pardon us we trust, if we here express also our appreciation of—what is so well known to the inhabitants of this Town and vicinity—the unselfish attendance which you have always given to the poor of the place, and in which you have been so charitably assisted by Mrs. Worthington.

Trusting that Mrs. Worthington and yourself may be long spared to reside amongst us,

We are,

Your friends :

Thos Logan
R Smith
T J Tuck
Geo H Bradford
W J Hunt
M McCarthy
Alex G Lomas
Thos S Morey
G C Foote
Wm White
A Lomas
Paton Man'f'g Co'y
W Chamberlin
Stephen Edgell
E Pellew Felton
H B Brown
E T Brooks
W R Bradley
Robt N Hall
Jno C Eaton
Friend
Jno Elliott
Medical Hall
Geo W Brooks, Jr.
A Duff
H Corrigan
James A Gordon
James Davidson, Jr.
A D Bostwick
John Weir
Wm A Morehouse
A L Grindrod
H Wilson
Edward Dale
Arkly and Loomis
S J Foss
C Armstrong
A M Greenshields
E H Duff
L Farwell
H Hubbard
Wm Farwell, Jr.
Jas Woodward
J Dean
H A Elkins
Geo Brooks
D Thomas
W B Ives
E Clark

The Doctor replied as follows :

GENTLEMEN :—I assure you that I am deeply grateful for this expression of your approval of my professional conduct, on the occasion to which you refer, and for the magnificent present you offer for my acceptance.

I believe it to be the duty of every medical man, the moment he recognizes the presence of any epidemic or contagious disease, in the community in which he practices, to inform the authorities, so that such sanitary and restrictive measures may be instantly adopted as may tend to prevent the spread of the disease, and to save human life.

While there is no disease so loathsome in its character as small pox—thanks to the researches of the noble men of former days in our profession—there is no disease in the whole category of 'the ills that flesh is heir to' that can be so effectually kept within bounds.

In doing what I did, I have to say that I did what I conceived to be my duty and only my duty—and that when I did it I had no hope or expectation of reward.

Your recognition of the performance of this duty, and the friendly and generous manner in which you have rewarded my efforts shall ever be most gratefully remembered by me.

I have received so many acts of kindness from the people of Sherbrooke that I can hardly find words to express my gratitude to the Providence that guided me here to cast my lot amongst you, and to become a Sherbrooke man.

Over and above any reward for medical services, public or private, are kind expressions of approval, and when they come, as they do to-night, they make an impression that time will never remove.

I thank you for your good wishes to my wife, and trust that we may always have your friendship and approval.

I am, thankfully, Yours,

E. D. WORTHINGTON.

After the close of "business' the company were invited to partake of an excellent supper, to which they did full justice.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Cyanopuon Laryngis : Thyroiditis with blue suppuration.

By Sir G. Duncan Gibb, Bart., M.D., LL.D., Physician to Westminster Hospital, London.

At the recent annual meeting of the British Medical Association held in London, in the month of August, 1873, under the presidency of my distinguished friend, Sir William Fergusson, Bart., the following paper was read, and as it has a bearing upon Canadian Medicine, I would request its insertion in the pages of the *Canada Medical and Surgical Journal.*

Three-and-twenty years ago, a case of mine was published in the *British American Medical and Physical Journal* for September, 1850, of what I then called cyanopuon, or cyanuret of iron in the purulent discharge occurring in chronic disease of the breast. The pus imparted a distinct dark blue colour to the linen and dressings, and afforded much interest at the time. In dwelling upon it, I entered into some speculations as to its origin, and gave a summary of the cases that had been published. That paper has been quoted, and is especially referred to in Mr. Holmes Coote's article, "Abscess," in vol. i of *Holmes's System of Surgery.*

In October, 1870, an instance more remarkable still came under my observation, and is unique in the annals of medicine ; so much so, indeed, that it seemed to me desirable to place it upon record at once. Independently of the blue suppuration that was present, the pathological lesion

was of great interest from its uncommon character, danger, and subsequent good recovery. The particulars are briefly as follows. A single lady, aged 27, consulted me on the 21st October, 1870, with the following history. She had been delicate about the throat for some years, although the general health had always been good. About six months previously, she had suffered from a severe cold, with aphonia for a few days; this was followed by tenderness and subsequent swelling over the right wing of the thyroid cartilage. The former subsided, but the swelling remained permanent, became rather hard, and was sensitive to the touch. About five weeks before I saw her, the swelling again became painful and increased further in size; she applied poultices to it with some relief, and although it did not decrease nor subside, it became quite soft.

On presenting herself to me, a decided prominence was observed in the situation described, with distinct fluctuation, and the skin covering and surrounding it was discoloured of a brown and dark blue, as if from ecchymosis, but in reality not so. There was clearly an abscess present, consequent upon inflammation of the wing of the thyroid cartilage in the first instance; and the indication seemed clear enough to evacuate the matter with the lancet, although the propriety of doing so caused me some reflection; yet, if it were allowed to become chronic, the cartilage would be attacked and serious mischief might ensue. In the laryngeal mirror, the integrity of the larynx was seen to be perfect; and the voice was good, whether in speaking or in attempts to utter contralto notes. With a narrow sharp-pointed bistoury, a puncture was made, and a drachm and a half of pus was evacuated, of a dark blue colour, not quite so dark as Prussian blue, but more of an azure tint. The relief was decided, the swelling subsided a good deal, and bread-and-water poultices were prescribed until her next visit. A chemical examination of the pus yielded clear evidences of the existence of iron, by similar tests to those used in my first case. The patient had taken preparations

of steel internally some years ago, but not lately; the discoloration of the pus, therefore, was due to some physiological change analogous to that which gives rise sometimes to indigo in the urine.

In the course of two or three days, the swelling of the abscess had greatly gone down, with some discharge of blue pus that stained the linen and dressings. On the 7th day, there was a little oozing only of a thin bluish pus, which tinged the linen of a fainter blue colour. At this time, the parts were a little swollen and indurated; the cartilage, however, did not seem to be involved, and there was no fœtor from the pus. By the twelfth day, the discharge had almost wholly ceased, with no discoloration at all; the general swelling had further subsided; the skin looked more natural, and of a better colour; a little tenderness was present over the abscess, the original seat of which seemed to have been beneath the perichondrium of the thyroid cartilage. On the twenty-fifth day, the opening had closed and all swelling had subsided, yet a little discoloration remained and the merest tenderness. She was considered to be cured. When seen on the subsequent February 1st—fourteen weeks after her first appearance—she was perfectly well and complained of nothing, nor was there anything to be seen beyond the slight cicatrix to mark the site of the abscess. The thyroid cartilage had escaped great danger; for, although it must have participated to some extent in the inflammation which involved its fibrous covering, yet no subsequent symptom occurred to show that the cartilage itself was injured; and, as upwards of two years have elapsed, we may reasonably infer it has permanently escaped.

It may be observed, however, that suppurative inflammation of the external surface of the thyroid cartilage is extremely rare; and when to this is added the transformation of the well-known yellow into a distinct blue pus, the case is invested with many points of interest, both in a physiological and pathological sense. Blue stains occasion-

ally occur in the linen dressings, from chemical changes which pus sometimes undergoes, when the matter itself is not blue ; and this, I believe, has been the experience of several surgeons, including the late Sir Benjamin Brodie. The actual blue color of the pus within an abscess, however is a phenomenon of the highest degree of rarity, although the nature of the pus is perfectly harmless. If iron in any form has been given, we can readily understand its presence as the result of certain well-known chemical changes ; but otherwise, we must look for an explanation in something more subtle and profound, involving a combination of certain elements to produce compounds analogous (as has been already stated) to indigo, which, in its composition, is wholly different from a salt of iron. If Physiological chemists were correct in their views,that the source of the indigo-forming substance in the animal economy was or might be due to destruction of some of the proteine compounds, and more especially hæmatosin, then we have an explanation of the colour of blue pus ; but in the present instance, the pigment was due to a salt of iron, and not to indigo Dr. William Bird Herapath brought an instance before the British Association for the Advancement of Science at Bath in 1864, in which pus or the liquor puris was shown to contain blue pigment, and which he believed to be the first instance recorded of that character, whereas I gave a summary of ten cases in 1850. In this case, purulent secretions from the surface of an inflamed leg stained the clothes of a blue colour ; whilst in mine the pus of an abscess was blue previously to being evacuated, and had been so for many days before, which is a wholly different thing.

The experiments to determine its nature were these.

1. Liquor potassæ, added to the blue pus, discharged the blue colour, which it does with Prussian blue.

2. The addition of dilute muriatic acid, for the most part, restored the blue colour, which it also does with Prussian blue.

3. Some of the pus was evaporated to dryness and ignited; the calx, acted upon by a solution of ferrocyanide of potassium, gave a distinct alteration of Prussian blue.

I may remark, that these tests are wholly different from those of indigo. Moreover, on boiling some of the blue pus with distilled water, filtering, adding an equal quantity of liquor potassæ, which removed the blue colour, and then, again boiling, a dark brown colour was produced, showing that sugar was present, a phenomenon that I was the first to demonstrate upwards of twenty years ago. Under the microscope, no granules of blue pigment were observed; but the puscorpuscles seen were those of healthy pus, only coloured of a transparent beautiful blue colour, which was dispelled by adding a drop of liquor potassæ.

In my first paper, published in 1850, the chemistry of the subject was so fully gone into, as well as the consideration of pus of all colours, that it would be a needless repetition to go over the same groumd in the present instance. Suffice it to say, that we place upon record a case thus far unique in its combination of thyroiditis running into suppuration, the pus being charged with a salt of iron, giving to it a decided dark blue colour.

HOSPITAL REPORTS.

Case of Double Aneurism—Popliteal in left leg.—Femoral in right leg.—Cure.

John Lennan, 38 years of age, dark complexioned, over six feet high, stout in proportion, and altogether powerfully built, was admitted to the Montreal General Hospital on the 9th September 1873, under care of Dr. Ross.

History.—Was a soldier for twelve years, and got his discharge in 1865 ; was in the Red River expedition four years ago, and last winter served in the Battery of Artillery at Quebec ; during the past summer has been in the employ of the City Corporation as an ordinary laborer. After his return from Fort Garry he was ad mitte to this hospital for stricture and treated by dilatation, being much relieved. The cause of stricture was a gonorrhœa contracted while in the army ; there is no history of syphilis, although some of the inguinal glands are slightly enlarged, and he thinks he once had a sore on his yard ; there is no evidence, however, of constitutional taint. When in hospital three years ago with the stricture, just mentioned, there appears to have been nothing noticed in connection with his heart or circulation, and when he enlisted in the Battery he was not examined, strange to say. During the past summer, and especially for the past two months, has noticed that his wind was short, being unable to make much exertion, or walk up a hill without being soon *blown*. Occasionally he experienced a soreness over the heart, and constantly noticed a feeling of general throbbing from arterial pulsation. For the six weeks before admission his legs would be stiff in getting up in the morning, and about this time also he noticed a swelling in the right thigh, and in a few days a similar one in the left popliteal space, both of which pulsated strongly

and persistently. He positively declares that he had not been lifting heavy weights, or doing unusually hard work before he noticed those tumours. The man, however, has been most intemperate in habits for many years and he had delirium tremens on more than one occasion,—once in this hospital. He became grey about two years ago. and now has the appearance of a man of fifty ; altogether he has lived a pretty hard life, and is in consequence prematurely old.

The *physical signs* are nearly as follows : There is a loud double heart murmur heard over the entire chest, in front and behind, being loudest at mid-sternum ; in position they are aortic, and in character the systolic is blowing, while the diastolic is longer, louder, and has a rasping and at times a musical note. There is no undue dullness in the precordial region ; the apex beat is displaced about half an inch outwards ; all the arteries pulsate more violently than normal, and are visible in those parts of the body where they are placed superficially. In short, all the signs of both obstructive and regurgitant aortic disease are present in the case. As to the *aneurisms*,—one is situated on the right femoral, in position of Hunter's canal ; the other on the left popliteal, in the exact centre of the space ; the femoral aneurism is as large as a turkey's egg ; the popliteal a very little larger ; the first had the appearance of the fusiform aneurism ; the second is more sacculated.

As the man had been drinking rather heavily for some days before admission, and was suffering from the effects of his dissipation, it was thought advisable to improve his general condition before directing special attention to the aneurisms.

The plan of treatment chosen was *digital compression ;* so accordingly on the 16th September, the students attending hospital at the time, to the number of twelve or fourteen, under the superintendence of Mr. Cline, the clinical clerk of the case, commenced operations on the left femoral with a view to curing the popliteal aneurism. Compression was

exerted over the vessel throughout the length of Scarpa's space. During the first twenty hours the work went on uninterruptedly, and a change for the better was noticeable in the feel of the tumour, but about this time some misunderstanding occurred, after which things did not go on so satisfactorily, until after fifty two hours, no further improvement occurring, all pressure was removed. The patient, besides was beginning to grumble loudly from the pain experienced, and indeed, where the pressure had been applied most vigorously, immediately below Pouparts ligament, a superficial slough was threatening. To induce sleep about a quarter of a grain of morphia had been given hypodermically every sixth hour. He experienced some difficulty also in making water, and on one occasion had to be catheterized. The man remained in hospital only a few days after the work of compression was discontinued, preferring to leave, to submitting to further treatment of the same kind.

On the 7th November, 1873, Lennan again applied for admission, more, however, to "sober off" from a heavy drinking bout, than for the treatment of his aneurisms. He was now admitted under Dr. Wright's care. The project of ligation of one or other of the femorals was now suggested, but taking into consideration the condition of degeneration of the man's entire arterial system, this was soon allowed to drop. Dr. Wright, however, determined on giving the plan of cure by *flexion* a fair trial, and to that end, had the left leg flexed firmly on the thigh, and secured in that position by bandages,—placing at the same time a large pad of lint in the popliteal space. After the first thirty hours the pulsation was thought to be diminished in volume and area, and the tumor had a firmer feel. Flexion was continued uninterruptedly for nine days, but in the end it was thought that no real benefit had been effected.

All attention had hitherto been directed to the popliteal aneurism, and two much lauded forms of treatment, namely, digital compression, and flexion, had been tried and failed

to change the character of the tumour for the better in any one particular. It is but just to say, however, that the first plan did not get as fair a trial as the second, and certainly not as its simplicity and frequent success merited.

As a *dernier resort*, after the patient had had a few day's rest, a third plan of treatment, namely, *compression* by *tourniquets* was decided on, and consequently on the 26th November, two of these instruments were adapted to the right thigh, the treatment being now directed to the femoral aneurism. Carte's and Skey's tourniquets were those employed; they were adapted along the line of the vessel, and at a distance of about three inches from each other. The patient being an intelligent man and most anxious for a successful result was soon taught the *modus operandi* of the treatment, being instructed to relax the pressure exerted by one tourniquet as it became painful, not, however, until the vessel had been secured by the other.

Pressure was applied in this position uninterruptedly for six days, when the patient became so thoroughly fatigued and pained that he begged to be released, and the tourniquets were accordingly removed on the 2nd December.

The effect for good on the aneurism was admitted to be *nil.*

The general health of the man during all this time, it must be remembered, continued remarkably good; pulse tranquil; tongue comparatively clean; appetite fair; bowels moved regularly every second day, the bed pan being always used. He slept for one hour at a time, occasionally during the night, having some persons who understood it to watch the tourniquets and the pulsation in the tumour. He would, however, invariably waken when the pressure required to be changed.

On the 29th December, a final attempt at instrumental compression of the femoral aneurism was decided upon, accordingly at 7 o'clock on the morning of that day the same tourniquets were adapted to the thigh, and identically in the same positions as before. In eight hours there was a deci-

ded firmness in the feel of the tumour, and it had lost to a great extent its lateral pulsation; there was considerable pain on pressure; the leg and foot became slightly œdematous. The pulsation continued to become less and less distinct during that night until at 7 p.m. of the following day [30th] nothing of it remained or could be made out by the most careful examination. The time occupied in affecting such an important cure was only thirty-six hours. The tumour has now a firm—almost bony feel, and in size is about that of a large hen's egg; there is positively no pulsation in it; there is slight œdema of the foot only.

1st January, 1874.—No sign of pulsation; œdema has left the foot. At 12 o'clock, noon, to-day, arranged tourniquets on left thigh, to commence same treatment with the popliteal aneurism.

2nd January.—About mid-day the patient commenced to complain sorely of pain in the popliteal region. Notwithstanding, however, he was encouraged to persevere, and the pressure was positively never relaxed until 4 p.m., Sunday, when the tourniquets had to be removed; this made sixty-four [64] hours of uninterrupted pressure. On examination the tumour was found to be firm to the feel, painful but still pulsatile, though in the smallest degree. There was little or no œdema of the leg or foot.

January 6th.—Pulsation has entirely ceased in the popliteal aneurism, and the tumour is rapidly becoming smaller and less painful. The femoral aneurism has also all appearance of being permanently cured. The patient's general health remains excellent.

Case of Multiple Fracture of Arm.—Under care of Dr. Fenwick.

J. P., a French Canadian machinist, aged 26, was brought to the Montreal General Hospital in October, 1878, having been caught in the belting of the machinery he was working, and sustained the following injuries to his right arm:

There was a simple fracture of both bones of the forearm, about an inch and a half above the wrist joint ; a compound fracture of the ulna, and simple of the radius at the middle of the forearm : and a simple fracture of the humerus at the middle third. About half an inch of the lower fragment of the ulna protruded through the wound, and was with difficulty reduced ; the wound was about half an inch in length and ran in the direction of the bone. The limb, had in fact, been carried between the belting and the wheel, and had been made to accommodate itself to the convexity of the of the latter.

Treatment.—The wound was first thoroughly injected with 1 x 20 solution of carbolic acid and the edges brought together with a couple of wire sutures. The limb was arranged in a wooden splint placed along its under or flexor aspect. The whole was secured with a cotton bandage, the wound having been dressed with carbolized lint and oil silk.

On the third day the sutures were removed, and the wound injected with the ordinary carbolic lotion, and dressed with the same.

Things progressed favorably until about the twentieth day, when an abscess of considerable size made its appearance above the position of the compound fracture. Poultices were applied, and in three or four days an incision was made, and about one ounce of pus extracted.

On the fourth week the dressing was removed, and it was found that the *simple* fracture of the forearm and the humerus had united as strongly as could be expected. As to the compound injury the bones were noticed to be in good position, the lower fragment of the ulna being perhaps slightly displaced. This, however, was soon rectified by placing a pad of lint over the protruding point, and producing sufficient pressure with a bandage to bring the bone nearly into its place. There was as yet little attempt at union. The external opening continued to granulate nicely.

During the seventh week, he begged to be allowed to go to his home. The simple fractures by this time had united. The compound fracture was also strong in comparison. The old and bulky dressings were removed, and a simple anterior splint applied to the forearm. The abscess had now ceased discharging, and the original wound was all but healed.

He appeared at the hospital on the seventeenth day after his discharge, when the bones were found to have united sufficiently firmly to permit of the removal of all dressings, and he was ordered some soap liniment to be applied to the elbow and wrist joints, which, as always occurs in such cases, had become stiff from long confinement in one position. The man's health remained excellent throughout, and of late he has become quite stout. His good condition may, no doubt in part, be attributed to a pint of ale, which he received daily during his stay in hospital,—taking it with his dinner. He was also remarkable for his good temper, which virtue, from its infrequent occurrence in hospital practice, always deserves special mention.

Case of Jaundice with Atrophy of the Liver, of four weeks duration.—Delirium.—Coma and death.—Under the care of Dr. Ross. Reported by Mr. Thos. Norton.

W. McL. æt 25, mechanic, unmarried, was admitted into the Montreal General Hospital on the 23rd November, 1873, suffering from well-marked jaundice. In August last he contracted a chancre, which we were informed by the Physician who attended him, was followed by mild secondary symptoms. At present he shows no traces of the disease remaining. He has never drank to excess. Has always enjoyed remarkably good health until three weeks ago, with the exception of occasional bilious attacks. About this time, however, he began to complain of slight aching in the back and loins, some pain in the umbilical and epigastric regions, with constipation, flatulence and loss of appetite : and at the

same time he observed that his urine was of a deeper and more decided yellow than usual. About a week after he took to bed, all the above symptoms having meanwhile persisted. The skin now began to change color, and he vomited several times every day. Observed his stools clay-colored.

Nov. 24.—He is deeply jaundiced. The whole surface and the conjunctiva being of a full golden-yellow color. No appetite. Tongue coated, and bitter taste in mouth; occasional pain in epigastrium, none elsewhere. Belly sof and flaccid; no tenderness over the epigastrium, nor along the edge of the ribs. No tumor or fullness to be felt in either of these regions; edge of liver undistinguishable; liver dulness 3½ inches in width, extending from lower border of 6th rib to near the costal cartilages. Has vomited 7 or 8 times since yesterday. Has had no motion for three days. Urine normal in amount, very deeply stained, looking as black as porter in the chamber. Sp. gr. 1015. With nitric acid it gave a very fine play of colors. With Pettenkoffer's test for the bile-acids, no reaction was obtained, No albumen. The pupils were dilated, but he is bright and intelligent. Pulse 50; respiration 17; temperature 97 3-5. Ordered a milk diet and a black draught.

Nov. 25.—Bowels freely moved. Stools light-colored. Vomiting continues. Quantity of urine about 30 to 40 ounces.

Nov. 26.—No change. Repeat black draught and give the following: R. Potass. Acetat. 1 oz., Tr. Scillæ, 2 oz., Aquæ ad 8 oz. One teaspoonful in water three times a day.

Nov. 27.—Continual vomiting, even water being rejected. Urine still freely voided, and bowels moved three or four times.

Nov. 28.—Vomiting continues. Ordered effervescing powders of Sodæ Bicarb. and Acid Citric to replace the previous diuretic mixture. Is quiet and intelligent as usual to-day, but complains of feeling weak, and seems rather listless.

Nov. 29.—At 5 p.m. yesterday he suddenly became quite delirious, getting out of bed and being very uneasy. Remained so for about four or five hours when he gradually became dull and apathetic. At the visit hour he was found very dull and sleepy and with difficulty to be roused. Pupils dilated. Has not vomited as often as before, and has passed much less urine. Percussion over the liver gives only two inches of vertical dulness, whether from distension of colon or not could not be determined. Pulse 60; resp. 16; temp. 98 3-5.

10 p.m.—More soporose. Found no urine. By catheter ·12 oz., urine drawn off—much lighter color. Sp. gr. 1025. Reacts freely for bile-pigment but not for bile-acids. Ordered black draught.

Nov. 30.—Bowels well moved by an injection. About midnight became suddenly delirious for about three hours, when he again became semi-comatose. Pulse 60; Resp. 12. Quite comatose. Pupils widely dilated; constant hiccough; incontinence of fæces and urine. 9 p.m.—Pulse 120. Resp. 24.

Dec. 1st.—Died comatose at 8 a.m.

Autopsy.—All the tissues deeply stained of a yellowish colour. Heart normal. *Lungs* considerably congested. *Brain*, normal; very small amount of fluid in the ventricles. *Liver* very small; weight 27½ ounces. Measurements, extreme transverse, across the two lobes, 9 inches; antero-posteriorly across widest part of right lobe, 6½ inches; thickest part of right lobe 2½ inches. The substance of the liver appeared remarkably soft and flabby although not very friable under pressure. The surface of the right lobe was of a mottled yellowish color, intermingled with parts of the natural tint. The left lobe was brownish-yellow in color, and more uniform. Section of the right lobe was of a prevailing, pretty-deep, yellow color, but apparently with the central parts of the acini of a browner hue. A section of the left lobe was much less yellow, more of a natural liver color. *Gall-bladder* collapsed, and containing only a small quantity

of thickened bile and mucus. The cystic duct was found to be impassable even for a small dressing probe through about its middle third. *Hepatic* and *common* ducts quite pervious and natural. *Duodenum* and small intestines generally stained deep green externally. *Pancreas* also greenish-black on side next liver. *Kidneys* normal. *Urinary bladder* contained about 15 oz of urine, which was high-colored but not dark.

Correspondence.

LONDON CORRESPONDENCE.

London, Eng., Dec. 8, 1873.

To the Editor of the Canada Medical Journal.

Dear Sir,—Although two months have passed since my arrival here, it is only now that I sit down to redeem the promise I made you when leaving Montreal. Not having yet become acclimated to London smoke and fog, you must excuse the dullness of this epistle. Londoners affirm that this has been an exceptionably fine autumn, and that November has been singularly free from fog. I, however, being a Canadian, cannot endorse their views, and think that English autumn weather might be improved upon. The London Hospitals have fully come up to my expectations with regard to the facilities they afford to students for acquiring knowledge. St. Thomas's is the largest, though perhaps there are not so many celebrated men on its staff as at some of the smaller Hospitals. It seems to be a favorite with Canadian and American students, of whom there are quite a large number attending there. Dr. Murchison is one of the Physicians to the Hospital, and much may be learned from following him. He is very particular in making students examine cases for themselves, and may be

safely called the best teacher of medicine at St. Thomas's. Dr. Murchison is at present delivering a course of lectures on the Practice of Medicine, at the School of the Hospital, which is well worth attending. His lectures are much condensed as he only delivers two a week. His style of delivery is easy, and the interest in the lecture never slackens. Dr. Barnes is also connected with St. Thomas's and delivers one lecture a week on Practical Midwifery.

Our little Canadian coterie has just been diminished by the loss of one of its number, Dr. L. St. John, who left for Canada last week, having passed his final examination for the M. R. C. S., Eng., most creditably. With regard to the examination for the M. R. C. S., Eng, in the Primary, Oral Anatomy seems to be the main subject, only a very superficial knowledge of physiology being required. They examine one very practically, the examination being mainly on prepared specimens, the freshly dissected subject, and microscopic specimens. In the final examination the oral lasts forty minutes, twenty minutes out of the forty being given to pathology, and the rest to surgical anatomy, and the examination of cases.

Here the Anatomy seems almost entirely to be learned in the dissecting room. The demonstrators, (of whom there are generally three) attend daily from nine A.M. to three P.M., and are *always* ready to afford information to students. Sharpey and Quain, and Heath's Practical Anatomy are the chief text-books; Wilson has been "shelved" for the last five or six years, and Gray is not considered an authority. Students from Canada find themselves more deficient in *Practical Anatomy* than anything else, and often regret that their early training has not been more thorough. It might be as well to inform intending candidates for the M. R. C. S, Eng., that they are required to have certificates of four years study *after* matriculation. [The year's study with a medical man does not count here]. Some of our graduates have been prevented taking their diploma, from having had only a three years' course, and even

four year students have found themselves in the same boat, owing to their having matriculated in their second year. For the double qualification of Edinburgh a McGill graduate is exempted from passing his Primary examination in Anatomy, Physiology and Chemistry. For the M. R. C. S., England, he is exempted from the examination in Medicine. It would be as well to inform graduates of McGill, and other Canadian Universities that their degree does not allow them to go up for the examinations of the Army and Navy Medical Services, a qualification in Medicine and Surgery *registerable in the United Kingdom* being required. I make this statement owing to the fact that the Calendar of the McGill University states that M.D., C.M., qualifies candidates to compete for those services. But such is not the case, as no foreign or Colonial degree is *registerable in the United Kingdom*.

At St. Thomas', the other day I saw Mr. Croft perform excision of the wrist. He made use of the bloodless method with the elastic bandage which is at present very popular here. All the carpal bones were removed as well as the ends of the radius and ul and the bases of the metacarpal. The case is doing remarkably well, and Mr. Croft expects that the patient will have a useful hand. In this case carbolic acid dressing was applied.

Mr. MacCormac, a short time since performed Wood's operation for the radical cure of Hernia. This case is also doing well. Speaking of this operation, Professor John Wood yesterday exhibited a man at King's College Hospital on whom he had performed his operation eight years ago; there had been no return of the hernia although the man had been doing heavy labouring work ever since. Much may be learned by attending the practice at the Royal London Ophthalmic Hospital, Moorfields. The staff includes some of the most celebrated oculists of the day, viz: Messrs. Bowman, Critchett, Soelberg Wells, Couper, &c. This is a very favorite hospital, and strangers are exceedingly well treated, every facility being afforded them of

acquiring knowledge. The House Surgeon, Dr. Buller, [a Canadian], is very kind and obliging. Any day you go you are sure of seeing a host of operations. The last time I was there I saw three cataract operations, two excisions of the eye-ball, one operation for symblepharon, and three for strabismus. Mr. Bowman advises iridectomy in all cases of immature cataract where the growth is slow. To hasten the maturity of a cataract he recommends what he calls "the bruising" operation. He first evacuates the aqueous humour, and then bruises the lens by pressure from without the cornea by means of a spatula. To evacuate the aqueous humour he makes a conical section and then generally performs iridectomy. I saw Mr. Bowman trephine in a case of conical cornea. He had performed iridectomy in this case six years ago, and believed that it had arrested the growth of the conical cornea. Mr. Critchett operated for sybmlepharon; he divided the frænum, and then transplanted a piece of conjunctiva to the raw surface. The case is doing exceedingly well. In the out-room much may be learned. One sees examples of every affection of the eye, and is allowed to examine cases with the ophthalmoscope. The other day there was a case of severe syphilitic iritis, to which Mr. Critchett ordered four leeches, to be applied to the temple; as soon as applied the leeches fell off, killed, Mr. Critchett said, by the syphilitic poison. He told us that four more would be sacrificed if necessary. Nearly all the surgeons of the Royal Ophthalmic use bichloride of methylene in their operations, but from what I myself have seen of its use, I should consider it to be far from safe. Mr. Couper prefers an-hydrous Ether.

Mr. Hutchinson's Skin Hospital is well worth a visit now and then. It is extraordinary what numbers of cases of lupus one sees there. Mr. Hutchinson says the most successful mode of treatment of this affection, he has found to be the actual cautery with a hot iron. He also recommends the application of the solid stick of nitrate of silver, and pure carbolic acid. The cases of Eczema and Psoriasis to be

seen are almost without number. In Psoriasis compound creosote ointment is used externally, and the mixture of Arsenic and Potash internally.

I saw Sir William Fergusson at King's College Hospital perform excision of the knee joint on a child about ten years old. He made use of the "bloodless method," and said that the remark of a friend of his some years ago that "excision of the knee joint was a *bloody operation*," could no longer hold. He was high in his praises of the bloodless method. The excision was performed by the straight transverse incision. The patella though not diseased was entirely removed. Carbolic Acid dressing was not applied in this case. At the Hospital for diseases of Women, Soho Square, operations are performed every Saturday morning at half past nine. Last Saturday I saw two ovariotomies. One was performed by Dr. Meadows, for malignant tumour, and the other by Mr. Heywood Smith. Dr. Meadows secured the pedicle by means of an ordinary pile clamp, after dividing the pedicle, he applied the actual cautery. Dr. Smith used a smaller clamp, and left it attached, not using the cautery.

Mr. Heath showed us a case on which he had performed colotomy for malignant disease of the lower bowel two weeks previously. The case seemed to be a very successful one.

Much excitement has been caused here lately by the loss of the "Ville de Havre." The survivors came to the Charing Cross Hotel where they received every kindness and attention. It appears from statements made by the crew of the "Loch Earn," who arrived at Plymouth yesterday, that the conduct of the French Captain and crew was anything but praiseworthy, that in fact it was exceedingly cowardly. The rights of the case have not yet been settled, but an enquiry is impending at Paris. The weather this month has been very mild, and the rainfall has not been great. To-day we have a real old-fashioned London fog, it is so dark that there is no traffic in the streets, and all the gas lamps are

lighted in the streets and houses. One of my friends who went to the city this morning in a hansom affirms that the fog was so great that he could not see the head of his horse.

Sir Samuel Baker delivered his long expected lecture on Central Africa last evening, which he was prevented before from doing by a severe attack of Pneumonia. The Prince of Wales was present and delivered a short address at the termination of the lecture. The public attention at present is much occupied by the Ashantee War; the Illustrated and Daily papers are full of it. It seems to have entirely eclipsed the Tichborne trial, which still drags on, though hopes are entertained of its speedy termination. Reports from the Gold Coast say that Sir Garnet Wolsely is prostrated by the fever of the Country. Much anxiety on his behalf is felt here, and it is hoped that his recovery will be speedy and complete. Everybody here is preparing for Christmas, and the shops are beginning to put on their holiday garb.

Hoping that I have not intruded too much on your valuable space,

I am, Sir,

Yours, truly,

F. S.

BERLIN CORRESPONDENCE

BERLIN, NOV. 25.th

Nature could hardly do less for a place than she has done for this. A barren, sandy plain surrounding it on all sides without a vestige of anything that might be called a hill; and the muddy, sluggish Spree, just deep enough to float barges, flowing through it towards the Baltic, form the sole natural features. Being a modern city it is well laid out, with wide but wretchedly paved streets; while the houses, though of brick, are stucco-covered and uniform, so that the general appearance of the place is clean. Unfortunately the cleanliness goes no farther than looks, being the very opposite in reality. The drainage is everywhere deficient,

and in the greater part of the city the sewers are not even covered but skirt the pavement on each side, sending up a constant odour, which, until one gets acclimatized, is peculiarly disgusting. The Berlinese have, however, at last roused themselves, and the council has voted two millions sterling for sanitary purposes, so that a striking reduction in the present high death rate from Typhoid and kindred diseases may be shortly expected. It would be superfluous to speak of the advantages here offered for medical studies, the name of Virchow, Traube, and Frerichs in medicine and Pathology ; of Langenbeck and Bardleben, and in surgery, of Du Bois Reymond, and Hetenholtz in Physiology and Physics are sufficient guarantees ; all of these men, who, though they have been prominent figures in the medical world for a long time, are still in their prime as teachers and workers. A contrast to London, where the teaching is spread over some twelve schools, it is here centralized and confined to the Royal Charité,—for though there are several smaller Hospitals in the city, yet they have no schools in connection with them, but are used chiefly for training nurses. The Charité is not a very imposing-looking building, but is pleasantly situated, and has large and nicely laid out grounds about it, within which, also, are the new Charité, and the Pathological Institute. The total number of patients at present is about 1300, and they can accommodate an extra hundred or two if necessary. There is nothing special to be remarked about the arrangements or ventilation of the wards save that in all, the beds are far too close together, so much so that a patient can, without moving, easily shake hands with his neighbor. Indeed in one of the wards of the new Charité, occupied by insane patients, I counted six contiguous beds, but here there was a day room for such as could use it. At a sort of branch hospital called the "University Clinique," Baron Langenbeck has his wards and daily clinique. The University itself is some distance from the Hospital, on the famous street "Unter den Linden," just opposite the Emperor's Palace. The primary Lec-

tures, except anatomy (with dissection) which has a separate building not far from the Charité, are delivered there. The Science and Art Courses attract very many foreign students, more so, even than the medical; still the attendance in the latter is very varied; as, for instance, at a Lecture the other day when representatives from Russia, England, Brazil, the United States and the Dominion sat peacefully next each other. There are only three or four Americans here, and the same number of Englishmen. They go chiefly to Vienna, where greater advantages are offered in all the specialities. The native students seem a hard-working set, much given to long hair and slouched hats, and a remarkable number of them wear glasses. They possess the virtue, quite unknown as far as my experience goes, among their English or Canadian brethren, of remaining quiet while waiting for a Lecture, or in the operating Theatre. There is never the slightest disturbance, though most of the Lecturers give what is called the "The Academical quarter," that is they do not begin till fifteen minutes past the appointed hour. At Langenbeck's Clinique only, are students allowed to smoke, and often by the time a patient is brought in, the condition of the atmosphere is such that as you look across the large theatre from the top, the men on the opposite side are seen through a blue haze. Quite a number of the students, more than I expected, are badly marked with sword cuts received in duels. One hopeful young Spanish American of my acquaintance has one half of his face—they are usually on the left half—laid out in the most irregular manner, the cicatrices running in all directions, enclosing areas of all shapes,—the relics of fourteen duels! The custom has decreased very much of late, and is now confined to a few of the smaller University towns. A great diminution has taken place in the attendance here within the last few years, and I am told it is greater than ever this session, due to the increased cost of living. Speaking from a six weeks' experience, I find it quite as dear as London. Field-sports, such as Cricket and Foot-

ball are entirely unknown among the students; but they have a curious habit of forming small societies of ten or twelve, who have a room at some Restaurant, where they meet to drink beer, smoke and discuss various topics. If tobacco and beer have such a deteriorating effect on mind and body, as some of our advanced Tee-totallers affirm, we ought to see signs of it here; but the sturdy Teuton, judging from the events of the past few years has not degenerated physically, at any rate, while intellectually he is still to the fore in most scientific subjects; whether, however, in spite of—or with the aid of—the "fragrant weed," and the "Flowing bowl," could hardly be decided. Drunkenness is not common, at least not obtrusively so, but they appear to to get a fair number of cases of delirium tremens in the Charité.

The general method of clinical instruction differs from that followed at the English and Scotch schools, in as much as the patients are taken into the theatre and then lectured upon. Of course this in a large institution necessitates having a number of theatres, some of which, however, are common rooms, with ordinary marble benches. The two great Clinical Teachers in Medicine are Traube and Frerichs, known the world over, as the most eminent of German Physicians. The clinique of the former is held daily from 9 to 11, three days in the wards, three in the theatre, and as he has over 120 beds to select from—Frerichs the same—there is no lack of suitable material. Indeed, at first, one wonders how such a large number of patients can be properly attended to by one man, but with a staff of their assistants, numerous clinical clerks, and a daily visit, it comes much to the same thing as a London Hospital Physician, with 20 to 30 beds, one house physician, and two visits a week. When a patient is brought into the theatre, a student is called out to take the case, and after the professor has examined it before him, he is asked the diagnosis and treatment. This does not amount to very much for the student, and is nothing like the rigor-

ous examination that Dr. Murchison would subject him to ; still those on the benches are, perhaps, more benefitted, and time is saved, while the student retains his case, and has access to the ward at any time to see him. Traube goes into his cases very fully, more so than Frerichs, and moreover, possesses those necessary adjuncts to clinical teaching, a pleasant manner and a fluent style. Typhoid fever [or Ileo-Typhus, as they call it here], Dysentery and Pneumonia are the prevalent diseases at present. Among the interesting cases lately in this clinique were the following : bronchorrhea, putrida, followed by diffuse gangrene of the lungs and death. A case of lead poisoning in a young woman, accompanied with epileptic convulsions and slight albuminuria, the former, however, in Traube's opinion, not depending on the latter, but due as I understood him, to an increased arterial tension, and consequent œdema of the brain. A previous poisoning, some twelve months ago, with similar attacks had been entirely recovered from. Another case was that of a man who four months ago had had erysipelas faciens, and ambulans which was foilowed by suppuration of the glands of the neck on the right side, which still remain enlarged and open. He has now amyloid degeneration of the liver, spleen and kidneys, and is rapidly becoming cachectic. The previous history was good. Cohneim had noticed similar cases during the last war.

Frerich's clinique, from 11 to 12 daily, except Saturday, is the favorite one with the students, for whom seats are provided in the arena, and they patronize it most extensively. It has a special merit for foreigners not yet proficient in the language, and who find a difficulty in following other lecturers, as Professor F. speaks in a slow, measured, almost monotonous way ; which would tend to act rather as a sedative, were his subject matter less interesting. The patient, as in the other cliniques, is brought in on a bed, or if able, walks in, and then sitting on the edge of a small table, the learned Professor enters into the history of the case, and asks a student one or two questions on it. Usually

three cases are seen within the hour, not, of course, always a fresh one, for as much as possible, every opportunity is given of watching the progress of particular cases, so that anything of special interest may be brought in daily. Frerichs does not go round his wards, but the students can do so with his assistants, at the morning or evening visit. Several cases of pneumonia treated on the expectant method for the benefit of the students occurred lately. As an illustration of the plentiful material I may mention that on one day three cases of Hæmoptysis were brought; one bronchial hæmorrhage proper, in a young girl; another from the passive congestion of heart disease, and the third from erosion of a vessel in the course of chronic phthisis. A case of particular interest was that of a young man with chronic dysentery, in whom symptoms of peritonitis and Ileus developed, after a protracted constipation of eight days. The diagnosis was cicatricial narrowing of the bowel, with probable external compression by the thick exudation. The constipation was overcome with clysters and Ol. Ricini, while opium was constantly administered, and the case seemed progressing favourably till an intercurrent pneumonia abruptly terminated it, and gave the opportunity of confirming the diagnosis by a post-mortem. Two cases of phosphorus poisoning have occurred in this clinique within the last few weeks, the first for more than a year. Formerly these cases were very numerous, as this was the poison commonly used by the lower classes; now, however, it is out of fashion, because they now know that death by it is neither speedy nor pleasant. Mineral acids are also much employed here for this purpose; so that altogether, the Berlinese seem unhappy in the choice of means wherewith to make their "quietus," far more so than the Londoner, with whom the orthodox way is a leap from Waterloo bridge, which, in its turn, is not to be compared to the pleasant charcoal fire of the Frenchman. The heads of lucifer matches dissolved in water is the substance used, and often, as in one of these cases, heads and all are taken.

The first case was somewhat chronic, while the second ran an unusually acute course, accompanied with hemat emes, death taking place within five days. The post-mortem appearances were very characteristic, the fatty degeneration being evident enough to the naked eye in the internal organs, while the microscope showed degrees of fatty change, unknown in any other pathological process, except in the acute yellow atrophy of the liver.

But it is the master mind of Virchow and the splendid Pathological Institute, which rises like a branch hospital in the grounds of the Charité, that specially attract foreign students to Berlin. This most remarkable man is yet in his prime, (52 years of age), and the small, wiry, active figure, looks good for another twenty years of hard work, when one knows that, in addition to the work at the Institute, given below, he is an ardent politician, evidently the leader of the Prussian Opposition, and a member on whom a large share of the work of the budget falls ; an active citizen, member of the Council, and the moving spirit in the new canalization or sewerage system ; an enthusiastic anthropologist as well as a working member in several smaller affairs, some idea may be formed of the comprehensive intellect and untiring energy of the man. On Monday, Wednesday and Friday from 8.30 to 11 he holds his demonstrative course on Pathology, the other mornings of the week, the course of Pathological Histology, while on the fourth day at one o'clock he lectures on general Pathology. Virchow himself, performs a post-mortem on Monday morning making it with such care and minuteness that three or four hours may elapse before it is finished. The very first morning of my attendance he spent exactly half an hour in the description of the skull-cap!

On Wednesday and Saturday the demonstrations take place in a large lecture room accomodating about 140 students, and with the tables so arranged, that microscopes can circulate continuously on a small tram-way let into them. Generally the material from 10 to 12 post-mortems

is demonstrated, the lecturer taking up any special group and enlarging on it with the aid of sketches on the black-board, and microscopical specimens, while the organs are passed round on wooden platters for inspection. A well provided Laboratory for Physiological and Pathological Chemistry also exists as well as rooms where men may carry on private investigations; and a Library and Reading room is now being fitted up. A description of some of the other classes and things of interest must be reserved for another letter.

W. O.

Perescopic Department.

SURGERY.

Lecture on Infantile Purulent Ophthalmia. Delivered at the Middlesex Hospital, March 4, 1872. By J. W. Hulke, F.R.S.

Gentlemen,—The purulent ophthalmia of newly-born infants is a complaint so destructive when allowed to run its course uncontrolled, and still more so when injudiciously treated, yet so amenable to proper measures, that no apology is necessary for again bringing the subject under your notice. In the lower classes of London population it is the most common cause of blindness in childhood. The mothers of infants attacked by it have so commonly at the time of their confinement a puriform vaginal discharge that it seems more than probable that the ophthalmia is often due to the direct inoculation of the child's eye with the maternal discharges. For the production of the ophthalmia there need not be gonorrhœa,—indeed, very often we feel confident that the vaginal discharge was not the result of impure sexual congress: the products of a simple leucorrhœa transferred to the ocular conjunctiva will provoke an acute suppurative ophthalmia. Analogy makes it probable (and

observation, I think, confirms it) that infantile ophthalmia consequent on gonorrhœa is more severe than that induced by leucorrhœa. The condition of the infant also is not without its influence on the affection ; for in puny, weakly infants the cornea offers less resistance, and more readily sloughs than it does in strong, healthy children.

Usually on the next or the second day after its birth the infant's eyelids are noticed to be a little swollen, the ocular conjunctiva is slightly reddened, and if the lower eyelid is drawn down so as to expose its inner surface, this also is found unduly red, and perhaps a flake or two of mucus is noticed on the loose folds of the membrane where it joins the eyelid and the eyeball. By the following morning the conjunctiva is much redder, it has also become slightly œdematous, and it exudes an abundant mucus ; the swelling and redness of the eyelids are also greater. By the end of the day the dropsy of the conjunctiva (*chemosis*) is often so great that the distended membrane overlaps the border of the cornea and bulges between the distended eyelids. The discharge is now purulent. The child evidently suffers much ; It is fretful and restless, and cannot sleep. If the intensity of the ophthalmia does not soon abate, the surface of the cornea loses its polish, it sheds its epithelium, the lamellar tissue becomes whitish-grey, sodden-looking, and opaque, it then sloughs and opens the anterior chamber, on which the aqueous humour, followed by the iris, gushes out. Upon this the lens, unsupported in front and pressed upon behind, is pushed forward against the back of the cornea. When the corneal breach is small and the protruded piece of iris is not large, the eye is not necessarily lost. Often the exposed iris inflames, it becomes thickened and coated with exudation, granulations spring up in this and also from the edges of the corneal opening, the hernia shrinks, and there results a scar, technically called a leucoma, in which the iris is permanently entangled. Although very disfiguring, such a scar—when its edge is definite, and when it does not overhang the whole area of the pupil, but leaves

part of this unobstructed—is not incompatible with useful sight. In course of time small scars often become inconspicuous, partly by a slow assimilation of the cicatricial tissue to the structure of the normal corneal tissue, and partly by the disappearance of the exudation and young cell-broods—inflammatory products evolved during the early stages of the process which ended in the gangrene of the cornea. In eyes bearing marks of a limited perforation of the cornea in early infantile life, and less frequently also where a faint corneal opacity without any corresponding adhesion of the iris (*anterior synechia*) points to a corneal lesion short of actual perforation, a minute white dot may sometimes be seen in the front on the lens. This is, I believe, the mark of a former contact of the lens and the back of the cornea. Where the cornea was actually perforated during the ophthalmia, the mechanism of this contact is perfectly plain; but even where the integrity of the anterior chamber was not broken, a little reflection renders it intelligible. The much greater convexity of its lens makes the distance between the anterior pole of this and the cornea much less in the infant's eye than in the adult's; hence, in ophthalmia, pressure exerted on the cornea by the œdematous conjunctiva and the distended eyelids, helped by the greater resistance to the recession of the eyeball into the orbit offered by the over-fulness of the orbital vascular system, and assisted possibly by a repletion of that of the choroid heightening the intra-ocular tension, may so lessen the small space between them as to bring the cornea and lens together. There they touch a minute bead of exudation shed from the cornea or iris on the lens (which latter becomes a little web of fibro-nucleated connective tissue), lessening the permeability of the capsule, checks the evolution of the developing lens-tissue, and cause a minute necrosis (an effect which simple pressure may also occasion), the residuum of which is an atheromatous speck. Where great part of the cornea sloughs away, the lens, together with some of the vitreous humour, is not

infrequently instantly extruded, followed by collapse of the eyeball. Where this has happened the scar replacing the cornea is apt to bulge, although its thickness may after some time much exceed that of the normal cornea, and it may become so prominent that the eyelid can be closed with difficulty over it, or not at all. In some such case a weak spot in the scar may burst from time to time, some of the fluid contents escape, and the projection temporarily lessen.

Treatment.—It would seem almost superfluous to tell you that you will not wisely employ alike in every case one inflexible mode of treatment. Ever keeping before you a guiding principle, you must always adapt your measures. whatever these may be, to your patient's circumstances. Thus, topical applications, which can only be safely applied by the skilled hand of a competent medical attendant, are out of place where, as in many country districts and in large poor-law and club practices, great distances and large demands on the practitioner's time make it impossible for him to see the patient daily. For this reason we seldom use the pure or diluted solid stick of nitrate of silver—a remedy recommended by foreign surgeons. This again is the reason why ice, an auxiliary much in favour with our foreign *confreres*, is so little used by us in these cases, because, unless the ice or ice-water is constantly applied, it promotes a greater reaction—its proper use demands such incessant attention as few patients in the working and in the lower middle classes can bestow or command; besides which, ice is mostly beyond the reach of the poor in towns, and not generally procurable in the country. The treatment which has been followed for more than a quarter of a century with much success at the Royal London Ophthalmic Hospital, the oldest and largest institution in this country specially devoted to eye diseases, consists in the frequent use of alum-water (generally gr. vj. ad oz. ij. aq. dist.). First, the eye must be thoroughly cleansed from the discharge; and, as this cannot be done without some pain

and struggling, it is well for the safety of the child's eyes, and in order to lessen the chance of the accidental inoculation of the nurse's eyes, to have the child completely under control. For this it is neither necessary or proper to give chloroform. A simple and efficient way is to place the child with its arms straight by its sides upon a shawl or on a long towel, and then swathe it round a few times in this, leaving only its head out. So swathed it cannot move, and one person, unassisted can do all that is required to the eyes. The eyelids being now gently separated without pressing on the eyeball, the discharge should be wiped away, and the eyelashes cleansed with tepid water and small pieces of rag, which should be immediately burned. Next, if the nurse is intelligent and has not clumsy hands, the conjunctival pouch under the upper and lower eyelid should be carefully syringed out with tepid water; for this a common pewter squirt will do. When the pus is thoroughly removed, some of the alum-water should be dropped into the eye, and diffused beneath the eyelids by moving these lightly over the cornea, or it may be injected under them with the squirt. After this the eyelids are dried, and a little simple ointment is smeared along their edges in order to prevent the eyelashes becoming glued together. If the ointment is softened to the consistence of cream by warming it, it may be very neatly applied with a brush. In an acute case the alum-water should be repeated frequently. At first every second hour will not be too often, and then as the ophthalmia yields the intervals may be increased, until, in a couple of days or so, six or four applications in the twenty-four hours will suffice. If the surgeon can see the child daily, and he prefers to use nitrate of silver, the eyelid should be everted and cleansed in the same way, and the exposed conjunctival surfaces should be lightly wiped with a caustic-stick, or [which I think preferable] brushed with a solution of salt—gr. x. to oz. i. One such thorough application a day is enough and in the intervals a little alum-water, pure or mixed with ext. belladonnæ [in the proportion of oz. viij. ad 3j.], may be

dropped three or four times into the eyes. The more powerful astringents or stimulants are to be used at longer, the milder at shorter, intervals. If you employ alum-water in the way I have described, you will rarely have to regret the loss of an eye. Such an occurrence is quite exceptional, and it seldom happens unless the cornea is already sloughing when the child is first brought to you. Implication of the cornea does not necessitate the discontinuance of the astringent remedy ; its use should be persevered in, because in the speedy arrest of the ophthalmia lies the best hope of averting or limiting the destruction. A small hernia of the iris through a limited breach in the cornea may generally be left to itself ; it will nearly always shrink as cicatrisation proceeds. Surgical assistance is seldom required except a considerable part of the cornea has perished, and a large piece of the iris, perhaps distended by the lens, protrudes. Under these circumstances the removal of the lens will hasten cicatrisation, and give a better scar ; the eye is greatly damaged or wholly lost as regards sight. For this no special operative skill is required. Chloroform may be given ; the iris should be cut with a thin, sharp knife, on which the lens will escape—if not, it may be removed with any small convenient scoop. After this the eyelids should be closed, and a small pad of cotton-wool secured on them with a roller. This is only exceptionally required. Not unfrequently, however, young children from two to four years old will be brought to you who have suffered from infantile purulent ophthalmia, and have the cornea replaced by a bulging opaque white scar, termed an anterior staphyloma. Such a prominent scar may prevent the eyelids closing, it is very liable to become inflamed, and it is very disfiguring. On these grounds the abscission of the front of the eyeball may be required. For this anæsthesia is almost necessary. The eyelids are held apart with a speculum and the eyeball being fixed with a hooked forceps, a small puncture is made into it with a pointed knife behind the line of the ciliary processes, large enough to admit one

blade of a scissors, with which the bulging part is cut off, care being taken that the line of the incision lies just behind the ciliary region. The lens is generally included in the piece cut off, but if not it must next be removed. If towards the horizontal equator of the eyeball the line of the incision is taken a little further backwards in the sclerotic, the lower and upper half-circles will fall together more neatly, and will not form the troublesome angle resulting from a truly circular abscission, which sometimes makes the fitting of an artificial eye so difficult, and its use painful. In little children I never sew up the wound, and seldom apply anything but water-dressing.

An occasional and very troublesome sequel of infantile purulent ophthalmia is inflammation of the lachrymal sac. I think it is more frequent where an acute ophthalmia instead of thoroughly ceasing has lapsed into a subacute chronic form. If the sac suppurates the abscess cannot be opened too early, and if after the subsidence of the inflammatory swelling epiphora and a chronic mucous discharge continue, the lower lachrymal punctum and canaliculus should be slit up into the sac. Through this the contents may be pressed out several times daily; and once a day after emptying the sac in this manner a few drops of a solution of sulphate of zinc [gr. ij. and oz. j] may be dropped into the corner of the eye. If the nasal duct is strictured you will best adopt an expectant treatment until the child is older.—*Medical Times and Gazette.*

On the Antiseptic and Disinfecting power of Iodate of Calcium. By E. SONSTADT.

In the first of my papers, "On the Presence of Iodate of Calcium in Sea-Water," I referred to the action of this salt on putrescible matter. Since that paper was published I have continued to make experiments on the properties of iodate of calcium as an antiseptic and disinfecting agent;

the experiments have been made with the dry salt, and also with a solution of the salt made by dissolving 1 grm. of the iodate in 1 litre of water. The principal putrescible substances experimented upon have been urine, albumen, fish. meat, and rain-water.

The experiments on urine were begun in the spring of last year. Equal quantities of fresh urine were put into two test-tubes, and to one portion a small pinch of the solid iodate was added : the specimens were placed close together. After a few days the specimen to which nothing had been added became very offensive, and I added to it about a fourth of its volume of the solution containing 1 part of iodate to 1000 parts of water. The next day the offensive odour was gone, but still enough odour remained to make the nature of the fluid recognisable. The specimen to which the solid iodate had been added at no time took any offensive odour, and after several weeks could not even be recognized for what it was by the smell. The minute quantity of solid iodate that had been added to it remained apparently undissolved ; up to the present time no sensible odour has been given off by this specimen. I have repeated this experiment several times with like result.

The experiment on albumen was begun on July 30, last year. Two fresh eggs were taken, and the whites put into two similar bottles. ½ decigrm. of iodate of calcium was added to, and shaken up with, the white in one of the bottles, the white in the other bottle being left as it came from the egg, for the sake of comparison. The two bottles were kept side by side, sometimes corked, sometimes uncorked, but were always treated exactly alike. The white of egg to which the iodate had been added remained sweet for about six months, after which it began to get discoloured and to smell disagreeably. It is now of a dirty yellow colour, and has a whitish deposit. The other specimen, containing no iodate, smelt disgustingly after about a fortnight, and is at present of a brown colour with brown

deposit. The odour is perhaps now equally strong from both specimens, but there is as great difference between the quality of the odours as in the appearance of the specimens.

The experiments on fish have been chiefly made on herrings. Freshly-caught herrings immersed in iodate water (containg 0·1 per cent of iodate) remain in hot weather perfectly good for about four days, after which they begin to slowly change. If dry iodate is sprinkled over the fish (1 or 2 decigrms. of iodate to a dozen fish) instead of immersing them in the solution, the result is the same, and in neither case is it possible to detect the slightest foreign flavour in the taste of the fish. It is remarkable that the solid, and very sparingly soluble, iodate of calcium, which, so sparsely sprinkled over the fish, can only be in contact with very small spots here and there; should still exercise its preservative power throughout as completely as when a solution is used ; that such is the case has, however, been proved, not by one or two experiments, but by many, since both last season and this, I have very frequently eaten fish kept fresh for a few days after being caught, by the dry or wet method indifferently. Salt herrings, a staple article of food in the Isle of Man in the winter time, have more or less of a disagreeable rancid flavour, whether eaten with or without removal of the salt they have taken up. But if salt herrings are first soaked in water long enough to remove as much of the salt as is considered desirable, and then immersed in iodate water for twenty-four hours, they lose entirely this disagreeable flavour, and are completely restored to the condition, as to flavor, that they were in when freshly caught.

I have made several experiments on the preservation of meat by the iodate, and have obtained results similar to those described for fish. In the case of meat, the solution of the iodate cannot advantageously be used, since the juices are extracted, and the meat thereby injured. A very minute proportion of the solid iodate, sprinkled over meat,

will keep it good for three or four days (in summer time) longer than it will otherwise keep, and, if the meat has acquired a taint before the application, the taint is completely removed; this applies to the cooked as well as to raw meat. In one case I sprinkled over a small joint of beef, which, after cooking, proved to be tainted to the bone and in every part, about a decigrm. of the iodate. The iodate was simply dropped from between the finger and thumb over—and, of course, only very partially over—the surface of the meat; yet the next day the meat was as good as it was possible for meat to be, and was eaten with much relish. How the nearly insoluble iodate can have produced such an effect over parts that it could not come near to, I do not understand; I only vouch for the fact.

Putrid rain water becomes odourless, and agreeable to drink twenty-four hours after the addition to it of one-fourth its volume of the 0·1 per cent. iodate water. A litre of unfiltered rain-water to which 1 centigrm. of the iodate (1-100,000th) was added on the 10th of January, and kept in a bottle, is still, to all the senses, as it was on the day the specimen was taken.

Eggs, immersed in the iodate of calcium solution, were after a month not to be distinguished by smell or taste from perfectly fresh eggs; how much longer than a month they may be thus preserved, experience only can determine.

Fresh butter covered with the iodate solution, loses nothing in quality during three weeks, and would probably have kept good much longer. Butter that has begun to get rancid is greatly improved by soaking for a day or two in the solution, especially if once or twice worked up in it. Salt butter, after the salt has been washed out, and steeped in the solution for a day or two, is, if originally of good quality, made nearly equal to fresh.

Such small quantities of iodate of calcium as may be introduced into food by the treatment described, do not in any way alter the normal taste of the food; the only modification produced is to restore the original flavour when

that has been disguised or impaired by commencing decompositions.

In order to ascertain if much larger doses than any that could under any circumstances be introduced into the food eaten at a meal, could produce any injurious effect, I took at various times different doses of the iodate, the largest dose taken being 1 grm. This dose left a slight after-taste in the mouth, but I perceived no inconvenience, except a slight head-ache next day, an increased appetite, and, generally, such effects as might follow taking an ordinary dose of quinine. Some of my friends have tried small doses, such as a decigrm. at a time, in some cases with no sensible effect, in others with marked increase of appetite and increase of vigour. But it is in cases of fever and of attack by diseases such as typhus and cholera, propagated by some specific organic poison, that I should expect the exhibition of iodate of calcium to be followed by marked effects. A layman has small opportunity of making experiments in such directions. On one occasion, however, after exposure for some time to foul putrid odours, I found myself attacked by the usual premonitory symptoms of a typhoid fever, and all these symptoms *entirely* disappeared within a few hours after taking about a decigrm. of the iodate: one of my friends can give similar testimony. It appears to me that the iodate acts simply as a tonic on persons in health, but that, when there is an organic virus in the system, it is a potent agent in destroying such virus and in purifying the system. As a minor application, I may mention that the iodate has given speedy relief in cases of tooth-ache arising from caries.

I have made some experiments on the iodates of sodium, potassium, and of magnesium, in reference to any power they might have as antiseptics or disinfectants, but find them, although not quite without effect, very feeble as compared with iodate of calcium.—*Chemical News.*

The Relief of Intussusception by Gastrotomy.

A recent meeting of the Royal Medical and Chirurgical Society was of peculiar interest for the surgical members, in consequence of a discussion which arose on a very remarkable case which had been under Mr. Jonathan Hutchinson's care. The details of the case will be found in our report of the Society's proceedings at page 661. This remarkable case gave Mr. Hutchinson an opportunity of suggesting a revision of the opinions of surgeons on the propriety of operations for intussusception. There can be no question that they are in general opposed to operative interference. Thus, Mr. Pollock (*Holmes's System of Surgery*, iv, 619) says: "The proposal to open the abdomen should not be entertained"; Mr. Bryant (*Practice of Surgery*, p. 318): "Operation in intussusception is scarcely justifiable"; Mr. Holmes (*Surgical Treatment of Children's Diseases*, p. 570): "With regard to cutting into the peritoneal cavity, I would entirely abstain from any such proposal in a case which I regarded as one of intussusception"; and other opinions to the same effect might easily be quoted. But a perusal of the context will show that these surgeons, in condemning so decidedly the operation in cases of intussusception, were thinking of cases in which the symptoms are urgent and the intussuscepted bowel tightly strangulated: so that adhesions rapidly form between the opposed serous surfaces at the point of invagination (which is the neck of the stricture), soon followed by ulceration in the line of the stricture itself, whereby the protruded bowel is often cast off into the cavity of the intestine, and life is, comparatively often, saved.

The merit of Mr. Hutchinson's paper (and a very great merit it is) consists in calling the attention of surgeons and of surgical pathologists to the occurrence of cases which bear more resemblance to incarceration of bowel than to strangulation, and to the probability—hitherto certainly unsuspected by pathologists—of finding the opposed serous surfaces of the invagination unadherent, even after a pro-

longed period of such incarceration. That this was so in Mr. Hutchinson's case, was undeniable; whether it will be found to be the general rule, or a happy exception only, cannot be decided without further experience. For the attention of pathologists seems hitherto to have been but little bestowed on these cases of chronic intussusception; and it seemed rather to take the audience by surprise to hear that, after the continuance of intussusception for a month, the gut might be as easily withdrawn as it would have been an hour after its invagination.

But, though we can hardly doubt that Mr Hutchinson's paper marks a real advance in the treatment of a disease which is usually fatal, it would, we think, be a mistake to suppose that it has revolutionised this treatment, or was intended to do so. The opinions, quoted above, appear to us at least (and we believe to Mr. Hutchinson also) quite sound, if limited to the acute form, which their authors probably had in their mind. In this form the natural cure is at any rate not very improbable; nor does it seem that the cure by insufflation or injection is rare—at least many instances are recorded in which the symptoms have yielded to this treatment, the invagination being presumably seated in the large intestine. And Mr. Hutchinson, far from wishing to supersede this treatment, on the contrary recommends that it should be carried on perseveringly; thinking, contrary to the opinion of most authors, that there is not the risk which has been alleged of bursting adhesions or rupturing half-ulcerated portions of bowel by repeated sudden distension. The operative treatment he would therefore reserve mainly for chronic intussusception. To quote his own words: "The cases best suited for operation are those which have persisted for some considerable time, and in which the intestine is only incarcerated, and these cases are also precisely those least likely to be relieved by any other method; and in the cases just referred to, after failures by injections, bougies, etc., an operation is to be strongly recommended."

Obviously, the chance of success in this attempt is measured by the probability of finding the intestine bound down by adhesions at the neck of the invagination. Until we have (what is wanting at present) an adequate number of careful observations on this point, we cannot form a definite opinion as to the chance of success; and the operation must under all circumstances, be looked upon as a desperate measure, and should be ventured upon only under the pressure of the most urgent necessity and on the clearest indication. But, given these necessary conditions, the surgeon will be amply justified in following Mr. Hutchinson's example; and he has laid the whole surgical profession under a debt by the judicious boldness with which he treated so formidable, indeed so inevitably fatal, a disease.—*British Medical Journal.*

On effects of Atmosphere in Cutaneous Affections. By George Gaskoin, M.R.C.S., Surgeon to the British Hospital for Diseases in the Skin.

There is a prejudice existing among the profession in London against sending patients to the seaside when suffering from eczema and some other skin complaints. This arises, no doubt, from common experience, though some more than others have partaken of it. Indeed, it is not uncommon to meet with patients who cut short their holiday and return to town with disgust. Instances of this, however piquant, need scarcely be given. The following I take from my note-book:—A. B., *Eczema*, presumably gouty —"The seaside is sure to bring it on." C. B., *Eczema mannum*, supposed to have come from drinking cold water when heated—"Only the seaside carries it away,"—so that I remain without a conclusion. Again, I see extensive and constitutional eczema, with or without asthmatic complication, in young people who return from the coast generally

improved by their autumnal trip when allowed to accompany their brothers and sisters in the family circle.

So much may serve to introduce the notice of a case which has come before me in the course of the year. A young lad presented himself to me afflicted with that general and, so to speak, constitutional eczema that is seen in the lower classes, and which for the most part goes uncured while they struggle courageously with existence. This lad tells me that he has had it always, except once that he took a dip in the sea at Brighton, when he got freed from the eruption for three days, but he never had the opportunity of repeating the experiment. This seems to stand on a level with another case which has occurred during the year. It occurred in a child two years of age. The mother informed me that the hooping-cough had cleared off the eczema in three day's time. On subsidence of the hooping-cough the eruption returned. The custom now much prevailing, of giving school-treats to parish children, is likely to furnish some items of disease. One of the worst cases I have seen of eczema capitis occurred in a school teacher in that way. This young man was of lymphatic constitution, and of Jewish parentage, residing in Houndsditch. The excitement, the heat, the sudden change to the air of Brighton, though but for a few hours, developed in him an eczema, whose copious flow and lingering effects made him an invalid for several months. "Disturbance" is the word which best explains such cases. I have known it in others who from London went for a day's holiday, or for a short spell into the country, and, curiously enough, sometimes when they visited their native place. In London shopgirls and shopwomen—rather a favoured class as regards diet and protection from weather—acne rosacea is very apt to follow on direct exposure, especially at the seaside, and when the day is warm. It is a complaint which is very apt to come on the coast, especially under a full diet, when there is a constitutional tendency. Among those of my patients who this year have received most benefit from

country air, I may mention a case of urticaria in a national schoolmistress, which was wholly refractory to treatment. I recommended her going into the country for a while. The cure was rapid and complete. Two cases of alopecia have much benefited by the seaside. Let me here say a few words of the kind of weather which patients with eczema complain of most. This is what is generally termed "coarse weather," windy, damp, and wet. In another case of urticaria the patient complained more of the wind than of any single thing as increasing his distress: from whatever quarter the wind might come. In a French shoemaker from Toulouse now under treatment for eczema, I find him insist on the change of the moon as operative in increasing his discomfort. By a man of the condition of master mariner, who superintends work down the river, now suffering from a tedious sycosis, I am asked if "any of those fellows could have put it on him," which may be worth mention here as it serves to show that the superstition of the "evil eye" is not yet, even in England, extinguished. —*Medical Times and Gazette.*

Sir Henry Thompson on Cremation.

Sir Henry Thompson, in the current number of the *Contemporary Review*, discusses with force, clearness and spirit, the question of cremation of the dead. The arguments in favor of such a mode of disposal of the dead carcases of men are rationally unanswerable. There is absolutely nothing to be said against it, and there is little present likelihood of argument doing much for the cause. It is a case for example, which would be of much more effect than precept. No doubt there is nothing but prejudice and an ignorant misinterpretation of certain texts, which could be advanced against cremation as a means of disposal of the dead. But there is a rooted sentiment which is opposed to it. It is ignorant; it is old fashioned; it is contrary to the

laws and the ceremonies of Nature, and to the interests and proprieties of civilization ; but there it is, and nothing short of the initiation of a Society of Incremators, like the recently formed Société de la Mort of Zurich, will produce any effect. If a few hundred men of notable character, ability, and respectability were to agree to commit their bodies to the flames after death, and make suitable arrangements, they might probably soon be imitated by many more thousands, and so the foul practice of committing a rotting body to the ground, there to poison the soil which it encumbers, would be replaced by the more reasonable and cleanly reduction of the body to ashes by the speedy agency of flame. Perhaps what Sir Henry Thompson has written may be the precursor of a plan of action. He has the ability, the courage, and the social influence, which fit him to lead the way in so useful a reform. If he succeeded, he would prepare for himself an earthly immortality.—*British Medical Journal.*

DEATH OF THE SIAMESE TWINS.

We observe in the telegraph reports from New York, dated 20th January, that the Siamese Twins died at their residence Greensboro, North Carolina, on the 17th of January instant. It appears that Chang was in ill health, being partially paralysed, and had for some time past, become addicted to drinking liquor, as a means of giving relief to his sufferings. As soon as it was discovered that he was dead, his brother Eng became very much excited and raved incoherently. This state was followed by what is reported as a deadly stupor, in which condition he died two hours after his brother. Was this from mental shock ? We shall look with interest for a more full report, and keep our readers *au courant.*

CANADA

Medical and Surgical Journal.

MONTREAL, JANUARY, 1874.

A REGISTRATION ACT.

At a recent meeting of the Montreal Sanitary Association, the Rev. Father Villeneuve is reported to have said that the clergy would give every assistance to ensure the proper execution of Civil Registration, provided it did not interfere with their Ecclesiastical Rights.

We certainly are at a loss to see how civil registration, if even performed by a Catholic or Protestant priest, can in any way interfere with his ecclesiastical rights. These functions cannot, and ought not to clash. All that is desirable is to ensure accuracy. If a general law, either a Dominion or a Provincial Act is obtained, how is it to be administered without the aid of the clergy? There are places in Lower Canada where the Priest is the only person in the community that is capable of keeping a register. Registration, such as it is with us at the present day, is a civil act, a copy of the register is required to be sent to the Prothonotary to be fyled or put away in the vaults of the Court House of the district. This does not interfere with any ecclesiastical right. But if a general law were in working order, the registrar, whoever he might be, would, in the execution of such duty, be a Government official, subject to such pains and penalties appertaining to his office in the case of neglect of duty. But again, are we not all, Priest and Laymen alike, subject to pains and penalties, in case we break the law, which as a society we have agreed to adopt for our well ordering. In what way, then, can ecclesiastical rights be assailed

or civil rights encroached upon by the carrying out of a general law which, as a community we all agree is necessary and advantageous as a sanitary measure. The law as it exists is inoperative simply because it is not imperative. Marriage and baptism in the Roman Catholic Church are regarded as sacraments, so that registration with them is a matter of secondary importance. Nevertheless, it is generally admitted that the register kept by that denomination is most accurate. Such cannot be said of other denominations. There are those individuals who do not believe in the necessity of infant baptism; others again, who neglect, or absolutely refuse to bring their children to their church to be baptised: with some of these latter a compromise is entered into between them and their clergyman, and the ceremony is performed in their houses. Again, there are, sad to say, in the city of Montreal a certain number of families who profess to belong to no creed, go to no church, and if children are born to them they are never registered. We know of several families who have increased and multiplied, and yet not a single name of any child born to them could be discovered on any register. These are facts which cannot but strike the reader with the urgent necessity for some change from the present system; to effect that change we must have united action.

We trust that the Montreal Sanitary Association will show something more definite on the subject than merely discussing the propriety of having a registration act. Prepare a Bill, gentlemen, have it printed and circulated fully; discuss its various clauses; obtain from other communities or cities in the Dominion suggestions or alterations that may be deemed advisable, and then submit it to the Commons of Canada with full certainty of its becoming law. By adopting this line of action the Sanitary Association of the city of Montreal will earn for itself an enviable notoriety, and deserve the thanks of the whole country—without something of the kind it might reasonably be supposed to resemble the meeting of the three tailors of Tooley Street.

THE PROFESSION IN ONTARIO.

We observe that the Homœopathic and Eclectic body of practitioners in Ontario, have applied to the Local Legislature of that Province, for an act of incorporation, giving them powers separate and distinct from the Ontario Medical Act, under which they have been admitted into the profession, on equal terms with those practitioners of Medicine who hold degrees or diplomas from our Universities, and some of the Colleges of Great Britain.

We have always opposed this unholy alliance. At the time of the passing of the Ontario Medical Act, we pointed out how degrading it was to the profession in Ontario to be in any way connected with irregular practitioners. We must say that it is a suitable retribution for wrong doing, the abandoning on the part of the Homœopaths and Eclectics their association with the regulars. In fact we presume they found the connection irksome—although according to the *Canada Lancet*, every concession was made. They were earnestly desired not to be malcontent, and yet they have severed the bond of union.

We congratulate the Profession of Ontario on having the semblance at least of freedom from their former contamination, and we trust it will be long ere they submit to be again connected with irregular practitioners.

We cannot believe that the Legislature will pass the Bill. In its present form, it is a gratuitous insult to the Profession, and will lower the standard of Medical Education in Ontario, which is bad enough already.

DR. F. J. AUSTIN, OF SHERBROOKE, P.Q.

We regret to learn that Dr. F. J. Austin, a Graduate of McGill University, who has been practicing in Sherbrooke in partnership with Dr. Worthington, since the beginning of 1868, has been obliged, owing to ill health, to go to Colorado for the winter months.

Dr. Austin was very successful in his profession; and as a proof of the estimation in which he was held, we may mention that a few days before he left he was presented by a few friends with a purse of $500, and a kind, sympathising address.

He carries with him the sympathies of his old teachers and classmates of McGill, and we sincerely hope he will receive all the benefit he anticipates from his trip, and that he will return in the spring in renewed health and vigor.

SMALL POX.

It is by no means pleasant to be forced again to notice the singular apathy of our Health Committee and our City Council on the subject of Small Pox. The disease is reported to be on the increase, and if we look at our weekly bills of mortality it will be observed that the number of deaths is augmenting week by week. It is true, no very prominent member of the community has been snatched away, to create a feeling of insecurity and to start a few vapouring reformers into temporary action.

What about a Small Pox Hospital—are we to have one? or two?—*or none at all?* Who will vouchsafe us an answer. It is a matter of very great importance to the community, and one which, if our life is spared we will endeavour to ventilate on all suitable occasions. We are not alone in considering it a crime to permit Small-pox patients to be admitted into either of our general hospitals. It is a crime against common sense, and in the face of all that is known not only of the course and history of the disease small-pox, but of facts which have been published enunciating the experience of other communities. There are those in our community who, in very bitter terms condemn the conscientious utterings of a certain medical Practitioner in our city who is rabidly opposed to vaccination, of course the arguments he advances possess some show of truth, but he ignores

altogether the published beneficial resuls of vaccination as a means of preventing the spread of small pox. So with our City Council, and so with our Health Committee. they all advance telling arguments in proof of the necessity of having a small-pox hospital separate and distinct from other institutions of that character. They even go so far as to recommend the erection of two hospitals,—one for the Catholic denomination, and the other for the Protestants. This we suppose will be sufficient far the Gentile population of the city, but what about our Israelitish fellow-townsmen should any of them require hospital accommodation for any of their sick afflicted by small pox. When shall we learn common sense?

DEATH OF DR. H. W. FULLER.

In a recent number of the *British Medical Journal* we observe recorded the death of Dr. H. W. Fuller of St. George's Hospital, well known as the author of a work on Rheumatism. He was taken ill on the 8th December with what appeared to be, and was diagnosed at the time, as Rheumatism of the Diaphragm. Symptoms of the formation of pus subsequently showed themselves, and although suffering much he still carried on some literary labour in correcting the proofs of a new edition of his work, which he was about to publish. The symptoms became urgent. He was seen by Sir W. Jenner, Dr. Barclay, Dr. Sieveking and others. The brain appeared to be affected, and he died on the afternoon of the 18th December. On post mortem examination the brain seemed filled with small pyæmic abscesses, upwards of 20 in number, scattered through it in various parts of its substance. An abscess the size of a good-sized orange was found in the posterior mediastinum, behind the pleural cavity, and close to the left side of the œsophagus, it was supposed to have originated in one of the bronchial glands. Death, in this instance, was clearly due to pyæmia, but the origin of the primary abscess is not so clear.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Puerperal Convulsions.—Patient delivered of Twins.—Recovery. By T. G. Roddick, M.D., House Surgeon, Montreal General Hospital.

(Read before the Medico-Chirurgical Society.)

The following case I have thought it well to bring before your notice, not so much on account of any special peculiarity in itself, as from a hope which I entertain that it may be the means of ventilating the experience of those present on so important a subject of obstetrical practice.

About 9 o'clock on the morning of New Year's Day last, the subject of this paper, an English-woman, thirty-two years of age, two years married, and eight month's pregnant, was seized while at her breakfast-table with a faint turn. Her husband immediately carried her to the bed, but she had scarcely been put there when she was seized with a severe convulsion, characterized by all the well-known symptoms of epilepsy. She had no sooner recovered from one fit than another came on, and these continued in quick succession for some hours. At length a medical gentleman, living in St. Joseph street, was summoned, who considered the case as simply one of epilepsy, and not recognizing the gravid uterus as an exciting cause, ordered the ordinary bromide of potash epileptic mixture. He visited the case frequently during the next twenty-four hours, and witnessed the convulsions. At the end of that time application was made for the admission of the patient

into the Lying-in-Hospitals of the city, failing which she was brought to the Montreal General, about 5 o'clock on the evening of the 2nd of January.

The husband stated that she had about a *hundred* fits since nine o'clock of the morning previous, which does not require the ordinary *granum salis*, as the doctor himself thought the statement no exaggeration. The husband further informed me in regard to the history of the case, that his wife had often told him that when a girl of twelve she was attacked with what was called in her neighborhood in England, the "minute fits," a term new to me, and consequently I cannot say whether it was true epilepsy or some hysterical attack. The fact of her recovering so rapidly, as she had them only for a short time, is opposed to the former supposition. She has always enjoyed good health, but since coming to this country about a year since, owing to their reduced circumstances, she has fretted a great deal, and at times could not obtain the strong and wholesome food she had been accustomed to. As a consequence she had latterly become very thin and pale, but excepting during the first three months of her pregnancy, when she suffered from very great irritability of the stomach, she has never found her child-bearing more than an inconvenience; her husband never heard her complain, or make the slightest reference to it. The morning she took ill she appeared to be as well as usual, and had not been excited or disturbed mentally in any way.

On admission to the Hospital her condition was much as follows:—Countenance drawn and livid; pupils slightly dilated; pulse 140, thready and somewhat intermitting; extremities cold; no marked heat of head: was deeply insensible; swallowed with difficulty. Dr. Chipman, who received her, immediately ordered a tablespoonful of brandy every half hour, and on coming in myself I supplemented this with a grain of opium, and 40 grains of the bromide of potassium, in powders, every four hours. On examining per vaginam I found the os uteri dilated to the size of a quarter

dollar, and dilatable in character. As she had had no convulsion for three or four hours, and was so thoroughly exhausted, I thought it judicious not to interfere at present.

At ten o'clock she had rallied considerably, so that now, although her pulse was still frequent, it had a much better volume, and was regular in rhythm. By this time she had taken about 4 ounces of brandy and two grains of opium. The os had dilated very slightly since the last examination, but I could now make out what I took to be a head presentation. The examination brought on a slight pain, the first yet noticed, and I took advantage of the opportunity to dilate the os by introducing a pair of ordinary long-bladed lithotomy forceps, and opening them slowly, a knuckle of the membrane with contained fluid coming down at the same time and assisting in the process of dilatation. This expedient, which was continued a couple of minutes, proved of immense advantage.

At twelve o'clock Dr. Chipman and I saw her again together. She had no pain during the past two hours, and on examination I found no marked change in connection with the uterus. We catheterized her with the hope that the condition of the urine might throw some light on the case, but got only a very small quantity which, unfortunately, was spilt through an accident to the vessel that contained it. I left orders with the nurse to be called in three hours, or before if any change should occur. I might here mention that the patient had had no genuine convulsion since her admission, nothing more than an occasional twitching of the muscles of the face, or clonic spasms of some of the muscles of one or more extremities.

3rd January, 3 a.m.—The nurse informed me that the patient had been sleeping soundly for the past two hours, and that there was no appearance of any pain or convulsion. With such a report I thought I could remain where I was for a time.

4.30, a.m.—Was aroused hurriedly by the nurse declaring that after three pains which quickly followed each other,

the membrane had burst and the child was presenting. In less than three minutes a dead child, perfectly formed but not fully developed, was delivered. On grasping the abdomen to make pressure on the uterus, I was surprised to find it still as bulky almost as before, and on examination per vaginam elicited the fact that there was a second child, the breech of which I could readily make out as it presented. With another pain, and the assistance I myself gave, this was delivered, also dead. The death of the children must have taken place some considerable time before, as the epidermis was abraded in several places, and the underlying tissues presented a dark gangrenous appearance. They were both males, and as near as I could judge of the same size. After dividing the cords, and at the end of about twenty minutes I went up for the placentæ, one of which I found adherent to the posterior wall of the uterus. Altogether, I should say there was about a cup full of blood lost during the delivery—certainly not more than that quantity.

The patient now, for the first time, showed signs of returning consciousness, as evidenced by greater ease in swallowing, and an inclination to grumble when much disturbed, as in putting on the bandage, &c. Her pulse was now 120, but fuller in volume and steadier than ever before; face more natural in appearance; pupils still dilated but easily influenced by light; temperature of body, and especially of extremities, was natural. A large motion was passed from the bowels during the labour. I gave her a draught containing two drachms of the extract of ergot.

2 p.m.—During the morning and forenoon she has taken a pint of strong beef juice, and nearly a pint of champagne, and the change for the better in her condition is really marvellous. She can now be roused, and answers in monosyllables when loudly spoken to. Her pulse still remains high, 116, but quite full and regular; temperature 99 3-5°; tongue very much swollen and marked by indentations from her teeth; it is also thickly coated with a white fur; complains of a pain, and when left alone falls into a

sound and tranquil sleep. Dr. Howard, who now saw her for the first time in making his visit, ordered the administration of a drachm of the compound powder of jalap, to clear out the intestinal tract. A specimen of her urine was obtained and examined this morning, and a *trace* only of albumen discovered.

10 p.m.—Is now quite conscious; pulse 104; temperature 100 1-5; complains bitterly of the soreness of her tongue when taking food or stimulants; the purgative has acted once; has taken a large quantity of nourishment during the afternoon and evening.

January 4th.—Has had a good night; bowels once moved; pulse 96; temperature 98 4-5; has no complaint to make excepting of her tongue, for which, by the way, she has been ordered a soothing mouth wash.

January 6th.—Patient still on the mend. As there was some fetor about the discharges, Dr. Howard prescribed the employment of an injection containing a drachm to the pint of Condy's fluid twice a day.

January 9th.—To-day the patient is not so well; complains of pain in the left hypochondrium; pulse 120; temperature 101 1-5; inclination to vomit; headache, &c. Dr. Howard ordered six leeches over the part, to be followed by hot fomentations, and the following mixture:—

Liq. Ammon. Acet., 3ij.; Morph. Mur. ¼ gr.; Acid Sulphuros. 3 ji. Tr. Aconit. M. iij. To be given every three hours.

January 10th.—Is much better to-day; pulse and temperature almost normal; slight tenderness only on deep pressure over any part of the abdomen: the same treatment to be continued.

The above mixture was taken for four days, after which five grain doses of the citrate of iron and quinine were substituted twice daily, and solid food allowed. The woman is still in hospital, but with the exception of slight stiffness in the limbs in walking she is perfectly well, and will return to her home in a day or two, or as soon as her

husband can make certain arrangements necessary for her comfort.

The case just related, I take it gentlemen, is interesting from many points of view. It undoubtedly belongs to that class of convulsions termed *asthenic*, and which is probably the less frequent form. The cause also of the convulsions in this patient is an interesting question. They are not likely to have been purely uræmic, from the fact of so little albumen being found in the urine, although the examination of that secretion was not made until some hours after the delivery. Besides there were never any symptoms really referable to the kidneys, nor was there at any time anasarca, the usual development of deranged renal secretion. My opinion is— I have thought that there were at least three of the recognised causes of this morbid condition combined to produce the convulsions, viz: 1st the impoverished state of the woman's blood from bad food, and general unhealthy surroundings. 2nd. The presence of the dead twins. 3rd. The pressure of this more than ordinarily heavy gravid uterus on the renal veins and nerves, causing the accumulation in the blood of poisonous elements. Any one of these causes would of itself be sufficient to produce the effect; but it is very questionable whether they ever occur singly, the entire nervous system and organic functions generally, being so bound up as it were in the well-doing of the uterus during its child-bearing state.

As to the treatment employed I cannot but think that the opium did marked service, both as a sedative and stimulant. The bromide may have also assisted in bringing about at least some of the first-named effect. The uterine injections of the Condy's solution might also be mentioned as constituting an important part of the treatment, correcting as they did so effectually the fetor of the internal discharge. Probably there is no preparation of this kind employed which will so soon and so effectually accomplish the end in view as that used on this occasion.

Vaccination—a few remarks on its efficacy. By George A. Baynes, M.D.

I thought that at this present time, as small-pox is prevalent, a few remarks on the efficacy of vaccination, &c., would not be out of place.

Every one is familiar with the circumstances which led to the discovery of vaccination, which has immortalized Jenner, who, in the pursuit of his investigations, maintained the following points :

1st. That the essential difference between cow-pox and small-pox is the comparative virulence of the two affections, the cow pox being the milder.

2nd. That the person vaccinated with matter from the cow, resists inoculation by variolous matter.

3rd. That the preservative influence of vaccination against small pox is perpetual in the same individual.

Every one coincides with Jenner on his first two points, but some doubt is entertained as to the truth of the third ; it has caused much disputation, and there is still some difference of opinion as to the necessity of re-vaccination. Those who are of opinion that Jenner was in error, base their opinion on the fact that persons who have been vaccinated have contracted small pox, and conclude that the vaccine matter loses its efficacy, and therefore re-vaccination is absolutely necessary. However this may be, one fact is beyond dispute, that small-pox is very mild and extremely rare after vaccination.

It seems to me that the necessity for re-vaccination depends on whether the vaccination was "Genuine or Spurious ?"

If it is spurious of course it cannot be called vaccinia, it affords no protection, and therefore nothing is proved.

If the vaccination were genuine, it proves that small pox has occurred after vaccination. But to give due weight to this last result it should be looked at in its proportionate light, and then deductions made. Thus what proportion

do attacks of small pox coming on after genuine vaccination bear to those after no vaccination. Surely a minimum and of course a rare exception to the regular rule. And further it is possible for a person to have a second attack of small pox, although these are rare exceptions also. So that if small pox itself is incapable of protecting from a second attack, how absurd to try and prove that vaccination will secure what inoculation, or rather small-pox itself, cannot, viz: "Perpetual Protection." But even if Jenner were right in his third hypothesis, public opinion is in favor of re-vaccination. So the question is whether medical men are justified in pandering to popular prejudice? The answer is simple. Public opinion like Fashion, never mind how absurd it may be, must be attended to, and besides, re-vaccination is not hurtful, and may be necessary where the first may have been spurious, and it also allays fears which otherwise might prove injurious.

Mode of performing the Operation:—It is a matter of importance, and requires some care, the young vaccinator would do well to remember the following hints:

In vaccinating female children do so high up on the arm just about the insertion of the deltoid muscle, as you may in after life, if you neglect this, be made to blush when the young girl who has grown to woman's estate, shows you the indelible scar, which is unprotected by the sleeve in evening dress.

If the lymph is fresh it is useless and painful to children to be scarified in more than one place; besides the protection of one genuine vesicle is equal to three or four, and the constitutional disturbance is not so great.

Be very careful that the lancet you use is very clean, and keep the same one for vaccination only, for it is possible to transmit virus from one person to another by the pus, &c. See that the lymph used has no blood or other secretion from the person supplying it.

The best manner to keep vaccine is in hermetically-sealed capillary tubes, which if it be wished may be kept

for years, even in warm climates, where the ordinary scab or lymph, preserved between glass plates, or on ivory points, readily decomposes. Select the lymph before the purulent stage comes on, about the eighth day is the best.

Signs of Genuine Vaccination.—This is the point, on which, to my mind, the necessity of re-vaccination depends, and the progress of the maturation of the vesicle should be watched attentively. After the operation nothing is noticeable for two or three days, but at the end of the third, or the beginning of the fourth day, a small red spot appears, followed a few hours after by a circumscribed redness ; on the fifth day the vesicle becomes distended with serum : on the sixth day the vesicle becomes of a circular or oval form, with a whitish umbilicated appearance ; on the seventh day the vesicle becomes more full, and the inflammation extends to the subcutaneous cellular tissue ; on the eighth, and sometimes not until the ninth, the vesicle is at its height of perfection and is surrounded by a scarlet redness ; and then the surrounding glands become affected, and sometimes the febrile symptoms are very severe ; and on the tenth day the redness begins to fade, the inflammatory symptoms subside, the serous exudation becomes purulent, dessication commences, and the scab assumes a mahogany colour, which falls off about the eighteenth or twentieth day after vaccination. Then is formed the cicatrix, which never disappears if genuine. In spurious vaccination, there is no incubation, &c., the third or fourth day a purulent secretion appears, a scab forms and exfoliates on the fifth or sixth day, and may become reproduced again ; and even if it happens that the scab remains on for two or three weeks, and is not followed by the peculiar cicatrix, you may put it down as a spurious case. The next point to consider is :

At what age an Infant should be Vaccinated.—Medical men are very positive, every one following some peculiar notions of his own, some say at ten months, others at eight, others at six, and so on. But to my mind the question of age should not be considered at all ; for instance, if

an epidemic should break out, or even a sporadic case appear in the neighborhood, there can be no doubt as to what is our duty, even if the infant is but a couple of weeks old. As a general rule, if the health of the child will admit of the operation it is our duty to do so within six weeks at least. As to the best season, try and avoid the two extremes if possible, of heat and cold, vaccinate in spring or fall if the opportunity will allow it.

Is IT PROPER TO VACCINATE DURING THE EXISTENCE OF CUTANEOUS DISEASE. — On this point there is much discrepancy of opinion, some maintain that the vaccine vesicle will modify, and even remove any cutaneous affection that may exist, while others state that an eruptive disorder, no matter of what kind, will prevent the absorption of the vaccine virus, and therefore nullify its protective influence against small pox. I have not seen any facts, however, to sustain this latter view. If we allow ourselves to be led by circumstances it would be better not to wait for the subsidence of the eruptive disease. If small pox is prevalent, vaccinate at once; but if there is no danger to be apprehended, a little delay would be advisable.

ON THE TRANSMISSION OF SEPTIC POISON BY VACCINATION. This is the principal objection, that those who are adverse to vaccination, urge against its adoption. But if you examine the evidence of the "Special Commission," appointed for its investigation, I don't think it possible to bring in a verdict of guilty, but on the contrary there will be found an honorable acquittal. For full particulars of reports, *vide Lancet*, page 143 and 52, vol. II., 1871. It may be well here to quote a few remarks from an able paper on "The Vaccination Question," by Dr. Anstie, which will be found in the third volume of "The Practitioner." He says:—"It is ridiculous to charge septic infec-
"tion, and consequent erysipelas or pyaemia to vaccination
"itself, because it is really the result of culpable negligence
"on the part of the vaccinator, for either he must have

"taken lymph from a child actually suffering from acute "septic disease, or else the lymph used has undergone, by "being kept too long, or kept improperly, more or less "of that putrefactive change which affects all animal "matters placed in such circumstances; or lastly, he has "taken the lymph from a vesicle which had already become "a *pustule*." In regard to Vaccino-Syphilis, not only does he quote from the report of Mr. Simon to the effect that 539 medical men in answer to inquiries denied with scarcely an exception that syphilis can be conveyed as a true result of vaccination, but further the direct experiments of Cullerier and others, on the effect of intentional admixture of syphilitic matter and vaccine, and of the vaccination of large numbers of persons with vaccine matter intentionally taken from persons suffering from constitutional syphilis, added positive evidence of the most powerful kind, against the possibility of transmitting syphilis by an ordinary vaccination from a true Jennerian vesicle. Tanner says: "Evidence such and so weighty as this ought to convince the most incredulous; but there is yet one other fact of crushing weight, viz: that even the poison of small pox, one of the most subtle known to physicians, does not affect the lymph of a true Jennerian vesicle, where a person is suffering from small pox, contracted just before vaccination, and too late therefore to profit by its protective influence."

HOSPITAL REPORTS.

Amputations by Esmarch's Bloodless Method.

Case 1st.—J. B. V., a French Canadian lad, of 10 years, was admitted under Dr. Fenwick on the 16th October, 1873, having sustained a compound comminuted fracture with extensive laceration of the soft parts in and about the left ankle-joint; one wheel of an empty railway car had passed

over the limb and produced the injuries described. As it was thought utterly out of the question to save the foot, a consultation of the Staff was called, and the operation of amputation proceeded with.

As this was the first opportunity afforded here for the employment of the "bloodless plan," since it has been so highly recommended by MacCormac and others, considerable interest was excited when Dr. Fenwick announced his intention of trying it.

The patient being chloroformed, an ordinary cotton bandage was applied as tightly as possible from the extreme points of the toes upwards to the lower third of the thigh, including, of course, all the lacerated parts. A yard or so of strong rubber tubing of about the size of a pipe-stem was then wound firmly several times round the thigh exactly at the point where the bandage ceased, catching, in fact, its extreme upper edge ; the tubing was then securely knotted, and the bandage removed.

Amputation was performed below the knee by the double (antero-posterior) flap operation. The bones were sawn and the part removed without a sponge being soiled, so complete had been the process of strangulation. The tibials and three minor arteries were readily secured by ligatures and a smaller branch twisted, after which the band was removed. It was now interesting to see how the tissues, from being blanched to the last degree, suddenly blushed up, and a trifling general oozing ensued. A couple of small twigs only required twisting, and all arterial hemorrhage was at an end. The flaps were brought together, and the stumps dressed in the ordinary way.

He was not a strong boy, and consequently, the healing process was slow ; however he was discharged from hospital at the end of the sixth week with only a small but healthy granulating surface unhealed. The stump is now all cicatrized.

Case 2nd.—A few days after the above operation, Dr. Ross removed a toe and its corresponding metatarsal bone,

employing also the bloodless method. The patient was a man over sixty years of age, of very dissipated habits. He had been troubled for many years with a corn, situated over the metatarso-phalangeal articulation, and which at last had extended so deep as to produce caries of a considerable portion of bone both above and below the joint. The bandage and elastic ligature were in this case carried only a short distance above the ankle joint. Not a drop of blood was lost during the operation, and certainly not more than a couple of drachms after the bandage had been removed. Only one arterial ligature was required.

With the exception of a slight attack of erysipelas which interfered for a few days, the healing process went on uninterruptedly, and the recovery was early and complete.

Cases 3rd and *4th.*—These were both accidents to the left hand, caused by being caught between the rollers of machinery. One of the sufferers was a man of thirty years, the other a lad of fourteen—both strong and in the enjoyment of excellent health. The amount of injury was not equal in both cases. The man's hand, being thick and strong, was drawn in to the metacarpo phalangeal joints only, while the boy's was more or less bruised far up the back and palm of the hand. In the former, integument enough was found to cover the metacarpal bones after the removal of all the fingers ; but in the latter it was necessary to remove the entire hand, excepting the thumb, the metacarpal bone of which also had to be excised in order to get sufficiently healthy integument to cover the exposed parts.

The bloodless method was employed in both cases, the ligature being applied about the middle of the arm.

The patients are still in hospital, but progressing most favorably. In the case of the man, a large mass of the integument sloughed, but the exposed surface is now almost covered by cicatricial tissue. The boy's hand is doing well : he has considerable motion in the thumb. Within two weeks the wound will have entirely healed.

Books Received for Review.

The Medical and Surgical History of the War of the Rebellion. Part 1. Vol. 1. *Medical History prepared under the direction of* Joseph K. Barnes, *Surgeon-General, United States Army.* By J. J. Woodward, Assistant Surgeon, United States Army, with appendix pp. 1091. Imp. Quarto. Washington: Government Printing office, 1870.

War, at all times a calamity, is occasionally inaugurated when least expected, and when nations are least prepared for the emergency. Such appears to have been the case with the American nation, when, in 1861, the South Carolinians opened fire on Fort Sumpter. America had enjoyed a peace of nearly fifty years,—if we except the border difficulties, which were not participated in by the nation at large, nor did they in any way interfere with peaceful mercantile pursuits.

At the time that Sumpter was fired into, the Southerner did not calculate the consequences with his usual astuteness, nor did the Northerner look forward to four long years of bloody strife with his hostile brother of the South. War though it be hatched in hell, is very frequently followed by a blessing from on high. Certainly, in the case of America it has purged that great country, with all its boasted freedom, of the foul stain of slavery; so that although it must be admitted that the American war of rebellion was, while it lasted, an undoubted curse, yet it has been followed by the highest blessing that heaven can bestow on any nation—"Equal rights to all."

At the out break of the war so changed were the circumstances that in due time it was found that the returns for sick and wounded then in use by the United States army were quite inadequate and very defective. William A. Hammond, M.D., the Surgeon General of that period, issued

blank forms containing important changes and modifications, calculated to secure more detailed and exact reports of the sick and wounded, and in June 1862 it was announced by circular from the Surgeon General's office, that it was the intention to prepare for publication a Medical and Surgical History of the war. In 1863 the present able officer, Joseph K. Barnes, M.D., acting as Surgeon General, issued a circular to Medical Directors of armies in the field, whereby they were officially instructed to forward to the Surgeon General at Washington, duplicates of their several reports to their Commanding Generals, of the killed and wounded after every engagement. The Surgeon General requested that special officers should be detailed to collate and prepare all attainable statistics and data in connection with the past and future operations of the armies of the United States which may be rendered available in the accurate compilation of the Medical and Surgical History of the war.

Every facility was afforded for the collection and preservation of important information. Medical officers serving with their regiments in the field were fully supplied with a compact and portable register for sick and wounded. The Hospitals were likewise supplied with distinct registers, one for the sick and one for wounded soldiers, also distinct blank forms for all surgical operations. The Surgeons were instructed to enter in detail and as minutely as possible, the particulars of all Surgical operations with the results; these were to be preserved and a duplicate copy forwarded to the Surgeon General's office at Washington. In February 1864, we notice that separate reports were called for, of sick and wounded prisoners of war, and also of white and coloured troops; this was done with a view of obtaining with tolerable accuracy the sickness and mortality rates of each class.

In June 1864 Medical officers in charge of Hospitals were directed to collect and preserve with diligence and care, all pathological surgical specimens, which might be met with

in the course of their hospital practice. Such for instance as fractures, compound, simple, and of the cranium ; excised portions of bone ; diseased bones and joints ; exfoliations, especially those occurring in stumps; integumental wounds from round and conical balls, showing the points of entrance and exit ; wounds of vessels, nerves, viscera ; obliterated vessels, and where possible, photographs of extraordinary injuries ; plaster casts of stumps or of limbs upon which excisions had been performed, and novel surgical appliances or new plans of dressing. It was explained that all these specimens were required for the Army Medical and Surgical Museum, and to facilitate the work officers contributing specimens were requested to remove roughly all unnecessary parts, each specimen was then to be wrapped in a cloth to which was to be attached a block of wood, on which was to be inscribed with a pencil, the name of the patient, the No. of specimen and the name of the medical officer contributing it. These then were to be immersed in a keg of dilute alcohol, and when a sufficient number had been collected, the keg was to be sent to the Surgeon-General's office in Washington. In every instance where specimens were sent, the history of the case with a corresponding number to that on the block of wood was required to be forwarded.

We have given a slight sketch of the manner in which this work was inaugurated, and carried out, and it speaks well for all concerned. It could not have been accomplished with anything like success without the hearty co-operation and ability of the Medical Staff belonging to the regular and volunteer service. We must not omit to mention that the Secretary of War, the Hon. E. M. Stanton, took the deepest interest in the work, and mainly through his influence an application was made to congress, and an appropriation of money granted, whereby 5000 copies of the first part of the Medical and Surgical History of the War was authorized to be printed at the Government printing office.

Vol. I, of part one, consists of a series of statistical tables, presenting a summary of facts contained in the monthly reports received by the Surgeon General referring to the sickness, deaths and discharges from the service. These tables have been again subdivided into two groups, in the first are considered all facts referring to white troops, and in the second, what concerned coloured troops, as some importance is attached to this subdivision, as shewing the influence of disease on the different races. With regard to classification it is based on that which has been in use in England both for military and civil purposes, and was introduced by Dr William Farr of London. This classification differs, however, from that of Dr. Farr, inasmuch as the fourth class or what is termed 'Developmental diseases," is omitted in consequence of its referring chiefly to children, women, and aged persons, a class of people not likely to be met with in the camp of an army in the field. Again parasitic diseases are assigned to a special class There are some minor differences in the local diseases, and in class V are included wounds, accidents and injuries. It was also recommended that in the preparation of the blank forms, the most generally adopted English designations of disease should be used, and that the use of all Latin terms should be abolished. There is reference made to the method of the establishment of hospitals and of their governance, from this we learn that in due time general hospitals were looked upon and acknowledged to be independent military posts. The surgeon in charge was the commanding officer, subject only to the Medical Director, and to the Commanding General of the Department. This bears a marked contrast to the system pursued in the British army where all surgeons are acknowledged as bearing relative rank, but junior to all combatant officers of their rank.

The Appendix to this part is full of interest ; it consists of reports of eye-witnesses of the various engagements from the first disaster at Bull Run, to the close of the war. These are, in many instances graphic descriptions, and the

interest is kept up by well executed maps of the locality, upon which are marked the position of the contending forces. Altogether we regard this volume as of great value, not only to the student of the diseases of camp life ; but to all who are desirous of tracing the history of this most eventful period in the annals of the United States of America. The work is worthy of a great nation, and as a national work, it must be admitted that great credit is due not only to those who, at an early period of the struggle conceived the idea, but also to those who in the hurry and excitement of the strife, with all the extra fatigue and labor put upon them, after the actual encounter was over, when hundreds of wounded men had to be attended to, surgical operations to be performed, and ambulance arrangements or hospital necessities to be looked after, yet could find time to record what they saw, and keep a tolerably accurate record of the day's doings. We shall have to leave the consideration of the surgical volume to a future issue of the JOURNAL.

Lectures on Diseases and Injuries of the Ear, delivered at St. George's Hospital. By W. B. DALBY, F.R C.S.; M B., Cantab; Aural Surgeon to the Hospital. With twenty-one illustrations. 8vo. pp 228. Philadelphia, Lindsay & Blakiston, 1873.

This small work is intended, as stated by the author, to occupy a place midway between such compendious works as those of Mr. Toynbee and Mr. Hinton, which are rightly estimated as the best standard English works upon this subject. These lectures appeared in the "Lancet" in 1872, but during the past year had been revised and added to, before appearing in the present form. There is no doubt, that new books which, without being voluminous, shall give us all the recent pathological teachings and most approved plans of treatment, are from time to time an absolute necessity. More especially it might seem, is this the case, with

reference to such a branch as that of Aural Surgery, which is to such a large extent confided to specialists, and consequently so seldom closely studied by general practitioners Yet however willing most physicians in this country would be to hand over cases of ear diseases to able confreres who make a specialty of these particular affections, still from the lack of such persons every practitioner is obliged to undertake the cure of these cases as well of every other. Mr. Dalby's work is all the more attractive from its being compiled in the form of Lectures which makes it assume much more of the Clinical and less of the Didactic character. These lectures are short, practical, and at the same time comprehensive, and their value is greatly enhanced by containing the actual accounts of numbers of illustrative cases which occurred within the author's extensive field for observation at St. George's Hospital. There are ten lectures on diseases of the ear proper, and one additional lecture of considerable interest on the subject of deaf-mutism, and the best methods of education for these unfortunates. In describing the various appearances presented by the membrana tympani, as seen by the aural speculum, the author would seem to be particularly felicitous, possessing the faculty of making such comparisons and employing such words as tend to impress upon the reader the exact character of the morbid appearance intended to be delineated. All varieties of deafness arising from various organic and functional disorders, of course, are treated of *seriatim*, and the best method of treatment for each variety fully discussed. Besides these, there is also a special lecture of much interest even to the general reader on the subject of the terminations of Tympanic Disease—such as cerebral abscess, meningitis, thrombosis, pyæmia; and there can hardly be any doubt but that the liability of that oft-neglected ailment—chronic purulent catarrh—to terminate in some of these almost necessarily fatal lesions is a matter too frequently lost sight of by the general practitioner—more especially in the case of children. We highly recommend Mr. Dalby's Lectures to our readers.

Periscopic Department.

MEDICINE AND SURGERY.

A Lecture on the Proper Method of Treating Tapeworm. Delivered at the Middlesex Hospital, Wednesday, December 10th, 1873. By T. Spencer Cobbold, M.D., F.R.S, F.L.S, *Lecturer on Parasitic Diseases at the Hospital.*

Gentlemen,—The treatment of that common form of helminthiasis technically called "tapeworm" unfortunately corstitutes one of those departments of the healing art, about which people generally suppose that little or nothing need be said. Excellent practitioners will tell you that the administration of turpentine and castor oil, or the giving of half a drachm of the ethereal extract of male fern, suffices to dislodge the parasite; and, should the worm unhappily return—which is usually the case under such a rough-and-ready mode of treatment—all that you have to do is to repeat the remedy until the entozoon is finally destroyed. This kind of advice has the merit of being delightfully simple; but I have no hesitation in saying that in the majority of cases, the practical results following its adoption are eminently unsatisfactory. I am not stating that the particular drugs in question are inefficient; on the contrary, viewed as tæniacides, I believe them to be superior to kousso, areca-nut, and other more or less well-known vermifuges. What I contend for is that, although in a small proportion of cases thus treated you may have the good fortune to be successful, yet, in by far the greater number of instances, the parasite will return, because neither the head nor even the neck of the worm will have been dislodged.

If I read the moral of professional conduct correctly, it

should be our endeavour to effect cures as speedily as possible, thereby preventing the recurrence of the disease. The ordinary mode of prescribing is, to say the least, slovenly, and it fully accounts for the very incomplete results that are obtained If it be urged that I ought to produce evidence of the truth of what has just been stated, I can only point to my own experiences in this connection, and assure you that nine out of every ten cases in which my opinion has been solicited have been cast off or rejected ones, so to speak. I mean that they have been cases where the patients have long previously undergone treatment, experiencing only partial relief.

As observed in one of my former lectures delivered at this hospital, some persons think it fair and honest to record all cases as successful where the body of the parasite is eliminated from the bearer. Thus one practitioner, desirous of extolling the merits of turpentine, had the politeness to inform me that this drug. with its appropriate aperient combination, "never failed to bring away the worm where it had been known to have been present." This statement was based on experiences obtained by the treatment of thirty or forty dispensary cases. The inadequacy, however, of conclusions drawn from such a source must, I think, be obvious, for in no single instance does it appear that the head of the parasite was obtained, or even that it was so much as sought for by the medical attendant. On grounds, therefore, of this order, I maintain that it is unfair to speak of such cases as cures, and it is, further, an entire mistake to characterise the results thus obtained as successful.

Undoubtedly, now and then, cures have been effected without finding, or without any endeavour on the part of the practitioner to find, the head of the parasite ; but I hold that no medical man is entitled to pronounce his patient as absolutely cured, unless he has dislodged and produced the head from the matters discharged, after and in consequence of the advice and remedies offered and administered. It

may be, indeed, that the head, though expelled escapes observation, however diligently sought for; and it is quite certain that much practical experience is often necessary to enable the searcher to find the small isolated and detached head in the midst of dark-coloured fæcal matters. Repeatedly I have obtained it after hours of search.

Again, in proof of the statement which I have advanced, respecting the comparative infrequency of cure by the ordinary methods, I may mention that not a few of the numerous cast-off cases to which I have adverted have been those of patients who had undergone more or less severe drugging at intervals extending over a period of several years; moreover, as bearing on the question of diagnosis, it is also my duty to observe that patients have come to me for advice about their tapeworm disorders under far graver circumstances. I mean, that they have been subjected to the trying discipline of taking nauseous and drastic vermifuges for the expulsion of tapeworm and other parasites which, to my certain knowledge, never had any existence, excepting either in their own imaginations or in those of their medical advisers. This is a painful statement to have to make, but it is nevertheless strictly true. One of the most remarkable cases of this description is already recorded in my published *Lectures on Practical Helminthology*, case xxiv, p 44. Others of a similar kind are given in the volume referred to, where it will be seen that the majority of such purely imaginary cases of tapeworm occur either in overworked men or in hysterical women. Certainly they are amongst the most painful cases that we have to deal with; but, taken in connection with the phenomena of true parasitism, they have served to convince me that special knowledge on this subject is not without its practical value.

To return to the particular point previously urged, I have further to remark that, with more care in the exhibition of the ordinary remedies backed by a more thorough appreciation of the general economy and modes of development

of the human tapeworms, a much larger professional success will be obtained. Lengthened experience justifies me in making this statement. I can say, indeed, that, during the year now closing, it has been my good fortune to obtain unusual success in the treatment of tapeworm. Some of these helminthiases were regarded by the patients not merely as obstinate, but incurable cases. However, to cut the matter short, let me say that, in all instances, without exception, where I have this year had an opportunity of actually examining the fæces and other matters passed by stool, as a consequence of remedies prescribed by myself, I have succeeded in procuring the head of the worm. In every instance, therefore, I have been enabled to assure my private patients that they were permanently and absolutely cured. This success, unique, perhaps, of its kind, of course only holds good in the case of those persons who have properly placed themselves under my personal care. In the more numerous instances where my opinion has merely been sought, I cannot tell what result may have followed the advice given.

Here it is only just that I should likewise remark that, in all the cases above referred to, I have had to deal with the very prevalent beef-tapeworm. Had it been otherwise, a similar degree of success could not possibly have followed. It seems to me that the pork-tapeworm (*Tænia solium*) becomes rarer and rarer, whilst that derived from beef (*T. mediocanellata*) is extremely common. I am, indeed informed by a practitioner of great experience that, of late years, the tapeworm disorder has very sensibly increased in Somersetshire, and it would not surprise me to learn that such was the case in other counties. Be that as it may, I can now only find time further to observe that, in the diagnosis and treatment of tapeworm, there are many other practical points which I should have been glad to have brought under your notice. For these, however, it must suffice me to refer you to the work already quoted.

By way of bringing the subject to an appropriate

conclusion, I will mention one interesting case which came under my care last July. It was that of a gentleman who had carried the cestode entozoon about with him for a period of sixteen years. Previously to my seeing him, he had been repeatedly dosed with male fern, as much as one drachm and a half of the extract being taken by him at a single dose. The body of the tapeworm had several times come away; nevertheless, the patient was not cured. Like some other patients I have seen this year, he not unnaturally despaired of my ever finding the head. It appeared to him absurd that I should obtain better results than others; and the more so, since I proposed to employ the same drug that others had used. However, an admirable preparation of the extract, prepared by Corbyn & Co., had the desired effect. Recommending my patient to observe certain preliminary rules, I succeeded with much smaller doses of the drug than he had been accustomed to take. To be brief, the head of the worm was at once obtained; and thus, host and guest, after sixteen years of intimacy, were for ever separated, to the astonishment of the former and to the final discomfiture of the latter. During the residence of this truly obstinate parasite, I reckon that my patient must have been the means of distributing something like five hundred millions of tapeworm germs; and yet, possibly, scarce a score of these germs have since arrived at sexual maturity. Be that as it may, I judge that in the course of a few more years the parasite itself would have died a natural death. It was an ill-nourished specimen, and evidently feeble. How long a tapeworm, if left to itself, may be capable of living I do not know; but I lately saw a patient who assured me that he had played the part of tape-worm-bearer for a period of no less than twenty years.—*British Medical Journal.*

Current views on treating Stricture. By BERKELEY HILL, M.B., F.R.C.S, *Surgeon to University College Hospital.*

In the BRITISH MEDICAL JOURNAL for December 20th, 1873, views are held up to obloquy by Mr. Savory which he terms "current," but which I venture, nevertheless, to believe to be "old fashioned," if not obsolete. Mr. Savory attacks the employment of instruments for treating urethral obstruction of all kinds, which he alleges to be still customary.

Mr. Savory's conduct calls to mind that of Don Quixote when charging the sacks of flour in the mill, with this difference—the gallant knight-errant found his imaginary foes already erect before him, while Mr. Savory has had to raise up from the dead the objects of his wrath. For it is to be hoped that the treatment of all urethral obstructions, spasmodic, congestive, and organic alike, by instruments as routine practice has been discarded by properly trained surgeons. To impress his readers with the terrible evil of bougie treatment, Mr. Savory informs us that a distinguished surgeon once said, "Had bougies never been invented, it would on the whole, have been a great gain to humanity." Why not go further, and quote the anecdote of the two eminent physicians, both now dead, who were crossing the canal-bridge at Camden Town, on their way to a consultation at Hampstead, when one asked the other whether it would not be, on the whole, a benefit to humanity if all doctors were then and there thrown into the canal? His companion was, indeed, for the moment, of opinion that the sacrifice of the Faculty by drowning would really be advantageous to mankind. But arguments valid against an abuse of a remedy lose much of their force when that abuse has been subdued by more exact knowledge to a legitimate use.

At the end of his paper, Mr. Savory alleges that the sum of his argument is, after all, not to suggest that instruments are never to be employed, but to affirm that

they have been and still are grossly abused, and that in a word, instruments of any kind should never be employed in any way except as a last resource. With much of this everyone must agree ; but the statement, that instruments should never be employed except as a last resource, needs some qualification. In many cases, it is impossible to ascertain what is the matter without using instruments and any treatment under such circumstances might be "routine," but certainly would be useless. Were the comparatively modest position at the end of the paper the only one taken up by the writer, it would not call for special remark ; but there is more. There is confusion, under the term "stricture," of conditions that are now currently held to be not strictures at all, and are expressly distinguished from organic obstructions by all leading authorities in this department of surgery.

Mr. Savory says, "Any advanced student or young surgeon, if asked what he understands by the term stricture, would reply, a constriction of a portion of the canal due to thickening and deposit in its walls." And the student would be right ; it is Mr. Savory who makes the error of calling spasm and inflammatory swelling strictures. These misleading names, given at a time when the distinctions in nature and requirements of treatment were ill understood, are yet employed by some, it is true, but without thereby intending to imply that these temporary obstructions are similar in nature to organic obstruction ; and the surgeon who still looks upon spasmodic contraction, inflammatory swelling, and organic stricture as simple physical conditions to be treated only by physical means, had better take the advanced student, whose acquaintance with the subject is, nevertheless, second hand, for his teacher without delay. Certainly, more exact knowledge of the differences between these obstructions is current in standard treatises on urinary diseases, and the mischief that may be caused by using instruments in spasm and inflammatory swelling is carefully pointed out. So far from instrumentation being directed

as routine treatment, to the neglect of other means, even in organic stricture, such writers as Civiale and Thompson, to mention no more, warn their readers against hastily using bougies, which those masters strongly insist are evils even when most needed. And, whatever old-fashioned or obsolete books may direct, in no standard treatise of the present day is the use of instruments given as the sole or most important means of treating anything but organic obstructions.

Next, the reproach is made against instruments, that they do not afford a cure; that, though the passage may be widened to the normal extent for a time, it ultimately shrinks back to its dangerous constriction, and no permanent cure is effected. This is true, doubtless. There is no cure for stricture, if, by cure, we mean putting the urethra into such a condition that no further attention is necessary. A system of treatment that procures such a result has yet to be found. But, if by cure be meant restoration of the canal, so that it can be easily maintained at its full calibre throughout, the use of instruments does cure stricture, and it has yet to be proved that any other plan will do the same for organic obstructions. Apparently, one of Mr. Savory's objects in writing was to lead the profession to suppose that organic obstructions can be dissipated by his plan of treatment—that rest in bed for an indefinite time, with warmth and other adjuvants, can cause the absorption, either wholly or in part, of organic obstructions. Undoubtedly—and this is also current knowledge—the remedies on which Mr. Savory relies are efficient to remove the spasm and inflammatory swelling that often aggravate the inconvenience or suffering of an organic obstruction sufficiently to induce the possessor to seek surgical aid; but, when this is done, is any further progress made towards widening the canal? To ascertain this, the canal must be gauged by the hated bougie after spasm has subsided, and again when a week or a fortnight, or any time thought requisite, has been passed by the patient in his bed, and the mea-

surements compared. If Mr. Savory has done this, and finds the organic thickening gone, he has made a discovery of the highest value; but this is not told us in his paper. Otherwise, which patient will take leave of his surgeon with the most satisfied mind—he who has learnt to pass with ease along his urethra a bougie as large as the natural size of his canal, and has simply to do this, from time to time, to maintain the full potency thereof, or he who, having spent a fortnight in bed, finds he can pass his urine comfortably now his passage is somewhat widened by the subsidence of spasm or inflammatory swelling, but has still a tough and narrow part that will be tightly closed the next time spasm sets in, or a cold is caught? The one man knows that, if temporary irritation attack his urêthra, there is still room for the passage of his urine while the attack lasts; the other knows he must be constantly on his guard against accident, and live by rule, that his narrowed urethra may suffice for his daily needs.

It is useful to lift up the voice against the rash employment of instruments in urinary diseases; there are always, too, inducements to employ the bougie or sound: but this may be done without depreciating the current teaching and knowledge of these diseases, and casting mischievous prejudice on a valuable remedy.—*British Medical Journal.*

Clinical Lecture on a Case of Ascites from Obstruction in the Portal Vein, delivered in University College Hospital, By Sir W. Jenner, Bart., M. D., K.C.B., F.R.S., *Physician in ordinary to the Queen and the Prince of Wales; Professor of Clinical Medicine in University College; Physician to University College Hospital.*

To-day, gentlemen, I propose to speak of the case of Robert A——, a man who was in the hospital recently, and whose abdomen burst. You may remember that it gave way at the umbilicus with a loud report and a quantity of fluid came out. He had ascites, and also a considerable

amount of gas in his peritoneum. You know quite well, when an abdomen is resonant on percussion, and you find the resonance—*i.e.*, the air within the abdomen—move as you move the patient, that, as a rule, the gas is not in the peritoneum, but in the intestines. In this case, however, the gas was in the peritoneal cavity itself. That is why there was a report when the abdominal wall gave way. The man had had an artificial opening made in his belly—as I shall tell you afterwards—for the purpose of letting out the fluid. It had healed but imperfectly, and, when the gas rapidly accumulated, the weak spot ruptured.

The real causes of the man's troubles were an impediment to the flow of blood through the portal vein, and an impediment to the escape of bile from the hepatic duct. To these two lesions all the others which I shall describe to you were secondary.

Whatever permanently impedes the flow of blood through the portal vein, must have, as its necessary results, one or more of the mechanical consequences of congestion of the part the blood from which is poured into the portal vein. The blood cannot easily escape from the portal vein; and, of course, all the tributaries of the portal vein are swollen. The consequence is, that when there is impediment to the passage of blood through the portal vein, there is enlargement of the organs, the blood from which passes into the portal vein—as the spleen and the pancreas. The same impediment to the onward flow of the blood may also cause rupture of vessels. The over-distended capillaries burst, and extravasations of blood and hæmorrhages occur. Common seats of hæmorrhage from this cause are the stomach and the rectum—bleeding piles, hæmatemesis. This man, whose trouble I told you was the impediment to the flow of blood through the portal vein, had repeated attacks of hæmatemesis. Then patients suffering from obstruction to the flow of blood through the portal vein have effusions of serosity from the congested vessels. There is effusion of serum into the cavity of the peritoneum—ascites. This

man had ascites. Again, they have "watery fluxes," as they are termed—watery flow from the congested mucous membrane. The mucous membrane of the bowels often suffers from this when it is mechanically congested. The patients have watery diarrhœa. Then thickening of all the congested textures takes place. The coats of the stomach become thickened; the peritoneum becomes thickened; the coats of the intestines become thickened. Again, inflammation, acute or chronic, is very apt to supervene in the congested part. It does not occur constantly, but frequently; so that when there is impediment to the flow of blood through the portal vein, it is common to have catarrhal inflammation of the stomach, catarrhal inflammation of the bowels, peritonitis. These are common consequences. Again, ulceration of the congested surface may take place, ulceration of the mucous membrane of the bowels, of the stomach, of the rectum, of all the congested parts. This man had ulceration of the bowels and of the adhesions that had formed in his peritoneum. Then induration of all the textures occurs. Adhesions form between parts that should be free, especially in the peritoneum. Adhesion takes place between the coils of intestine, between the omentum and the intestines, between the intestines, perhaps, and the parietal peritoneum (as we saw in a case the other day), between the liver and the diaphragm, the spleen and the diaphragm, the stomach and the adjacent parts.

As the rule, when there is a *sudden* impediment to the flow through the portal vein, a hæmorrhage occurs. When the impediment is more slowly developed serous effusions occur. When hæmatemesis takes place, it generally relieves greatly and at once the congested organs. You find a man's spleen big to-day; he has hæmatemesis, and to-morrow his spleen is greatly diminished in size; its over-distended vessels are emptied, its thickened tissues only remain. You know the close vascular relations between the spleen and the vasa brevia of the stomach.

When I said that some one or more of these results necessarily follow the occurrence of obstruction, I said what was not quite true. I said it intentionally, however; because I wish to fix it in your minds. It is not really *necessary;* but it occurs in the vast majority of cases, in such a large majority that I would fix it in your minds as *the* consequence. It is not the necessary consequence, because a collateral circulation sufficient to relieve the congested vessels may be established. You will remember that there are anastomoses between the inferior mesenteric veins and the hypogastric veins through the inferior hæmorrhoidal, and so the blood may come back by the hypogastric vein. Again, the twigs of the portal vein and the veins of the serous covering of the liver open into the diaphragmatic and œsophageal veins, and these little communications may become considerably dilated. Again, adhesions may form between the liver and the diaphragm; new vessels be developed in those adhesions, and these new vessels may be sufficient to considerably relieve the congested portal vein. They open into the diaphragmatic and œsophageal veins. Again, the remains of the umbilical vein which runs in the ligamentum teres sometimes remain patent. When the portal vein is stopped the remains of the umbilical vein becomes dilated, and this little channel grows into a big vein, communicates with the mammary veins, and so returns the blood on the surface, and you see the greatly dilated veins there carrying up the blood. You will remember, therefore, when you meet with a case in which you believe that there is disease of the liver causing mechanical impediment to the flow through the portal vein, but in which you do not get the ordinary consequences, what I have spoken of as the necessary consequences, those which you would get in the vast majority of cases—remember, I say, that you may be right in your diagnosis, although you have not the ascites, the diarrhœa, the hæmorrhoids, or the big spleen, because some of the veins of which I have spoken may be performing the extra duty of carrying off the blood

from the parts which would otherwise be greatly congested.

Whatever impedes the flow of bile through the hepatic duct or through the ductus communis choledochus must impede the escape of bile from the liver; and whatever prevents the escape of bile from the liver will have jaundice following it, and all the consequences of jaundice.

We find that persons who are the subjects of the impediment to the circulation I have described not only suffer from the mechanical consequences of the impediment, such as the ascites and the hæmatemesis, which are common, and the ulceration of the bowels, which is rare, but they also suffer from defective general nutrition? This man was greatly emaciated. What is the cause of this general malnutrition? First, there is the damage mechanically inflicted on the mucous membrane of the stomach and bowels, and the consequent interference with the digestive process. There is diminished absorption from that cause. Then the mechanically over-distended radicles of the portal vein will be very unlikely to take up anything further. Again, there is the damage to the spleen and pancreas from their long-continued congestion, and the consequent interference with their functions. Again, there is damage to all the organs of the body from the damaged state of the blood consequent on these lesions and on the retained bile. These causes seem amply sufficient to account for the emaciation of the patient. Further, as I told you before, when the abdomen is greatly distended there is sufficient pressure upon the vena cava to interfere with the return of blood from the kidney; there is congestion of the kidney, and then, if the patient survives long enough, a form of Bright's disease and all its consequences.

Impediment to the passage of blood through the portal vein, and of bile through its ducts, is common enough—amongst the commonest diseases; because disease of the liver which has these results is common. But impediment to the flow of blood through the portal vein, and to the

escape of bile from the hepatic duct from some condition external to the liver, is rare. It does occur, however. For example, malignant growths or hydatid cysts may press upon the portal vein and the ductus communis choledochus outside of the liver. Dr. Stokes has detailed a case of aneurism of the hepatic artery, where it runs, together with the portal vein, in the border of the hepatico-duodenal fold, just above the opening of the foramen of Winslow, and which interfered with the flow of blood through the portal vein.

In the case I am about to narrate to you the impediment was the result of inflammation, induration, and contraction of the cellular tissue of the ligamentum hepatico-duodenale and the cellular tissue in the hilus of the liver—i. e., of the cellular tissue in which the portal vein, and the hepatic, cystic, and common bile-ducts lie. It was the trunk of the portal vein and the trunks of the bile-ducts which were injured and narrowed.

The patient was a man forty years of age, admitted into the hospital on the 9th of February, 1869. As the patient was confused in mind, and could only be made to answer questions with difficulty, the following history was obtained from his sister.

"At about the age of eighteen he enlisted as a soldier and went to India. He remained in India for twelve years, and returned to England about ten years since. While in India he was frequently in the hospital, as his sister had been told, on account of disease of the liver and spleen. He was a man of intemperate habits, indulging from time to time in 'drinking bouts.'" This is the common cause of cirrhosis of the liver. It is not the only cause, but it is *the* cause, the special cause, to which exceptions are infinitely rare. You will find it mentioned in books, that when making a diagnosis of a case of impediment to the flow through the portal vein, when considering whether it be from cirrhosis, which has that as its great symptom, or whether it be due to some impediment external to the liver,

if the patient be a drunkard it is probable that the case is one of cirrhosis. This man was a drunkard, and there was impediment to the flow of blood through the portal vein, but he was not suffering from cirrhosis.

"About six years before admission into the hospital, after one of these debauches of drinking, he vomited a large quantity of blood." So that at that time he had probably—pretty certainly, indeed—impediment to the flow of blood through his portal vein, mechanically induced congestion of his stomach, and as a consequence rupture of the capillaries and hæmatemesis. "The hæmatemesis was repeated on four separate occasions, the last being about twelve months before his admission." No doubt he was relieved by the hæmatemesis. The congestion of the radicles of his portal vein would be relieved by the escape of blood. The loss of blood was not enough to kill him, but merely enough to relieve considerably the congestion of his spleen and of all the radicles of the portal vein.

"After the last attack of hæmatemesis. twelve months ago, the swelling of the abdomen, which had been transient before, became permanent." The transient swellings of his abdomen were probably due to flatulence. The patient had congestion of his stomach and of his bowels, thickening of all the abdominal tissues, interference with digestion, and accumulation of flatus. After the last attack of hæmatemesis the mechanically over-distended vessels relieved themselves by letting out serosity into the cavity of the peritoneum, and permanent swelling, dropsy, ascites was produced. This increased so much that "six months before his admission he was tapped just below the umbilicus, and five and a half gallons of fluid removed." The opening into the abdomen was made a great deal too near the umbilicus. A little ulceration resulted on the inner side of the opening, and obliteration of the umbilical depression ensued. It was a spot where the abdominal walls were weak, and so, when the fluid reaccumulated, the abdominal wall was distended at this spot; a very thin layer of skin

covered the fluid beneath, and the skin itself ultimately gave way. He was tapped where he ought not to have been; he should have been tapped lower down, some inches below the umbilicus, a little nearer to the umbilicus than to the symphysis pubis.

"The fluid soon reaccumulated," as it was likely to do. There was a mechanical impediment to the flow of blood through the portal vein; the effusion of serum was the mechanical result; and removing the fluid did not remove the impediment. "Five weeks after the tapping he was nearly as large as he was before the operation; subsequently the distention diminished a little. Five weeks before he came under observation he had a 'fit of drinking' (as his sister called it), which lasted two days. Three days before admission he was seized, 'after tea,' with severe pain in the lower part of the right side of the abdomen. The pain was less after taking some pills; but, as he continued very ill, he was brought to the hospital."

The severe pain in the lower part of his abdomen was, no doubt, the result of perforation of his intestines, which we shall see he had. You will remember that perforation of the intestine is usually announced by sudden severe pain—not always, for now and then pain is absent. All persons of much experience have met with cases where, curiously enough, perforation occurs, I do not know why, without any pain at all. The patient is not aware of having suffered any lesion. The rule, however, is that there is intense sudden pain, with symptoms of collapse, followed by those of peritonitis. The pills given were probably some opiates to relieve the pain.

On the man's admission into the hospital we noted that he was very thin, that his general nutrition was seriously interfered with. His skin was a dirty, slightly greenish-yellow colour. The greenish tint is the tint of long-continued mechanical impediment to the escape of bile from the liver. Hence it is a common tint in cancer of the liver. A person has a gall-stone, and a sudden attack of jaundice;

the colour is a deep yellow, with no greenish tint in it. But if he has a chronic jaundice, long-continued, his skin has the greenish colour. The veins on the man's hands &c., were small; evidently there was no impediment to the return of blood from the systemic venous system. They were pinkish, from anæmia. The pinkish colour of the vein is evidence of a deficiency in the red corpuscles, probably the result in this man of the interference with the nutrition in general, and perhaps also of the interference with the function of the spleen in particular.

"His abdomen was considerably distended with fluid. The umbilicus also was much distended. No scar could be seen between the umbilicus and the pubes." The fact was that perforation had been made at the umbilicus. "During the night, at the lower part of the distended umbilicus, the skin gave way with a loud noise." It would not have been a report had there been no air there. "A large quantity, supposed to be about five pints, of stinking fluid escaped. A drainage-tube was introduced, and a weak solution of carbolic acid injected. The next day (Feb. 10th) fluid continued to escape from the opening. It was very offensive, and gas escaped with the fluid." We had a full explanation of this afterwards, for we found an opening in his bowel; but remember that all collections of fluid in the vicinity of the bowel are apt to become a little offensive. "The abdomen was very tender. Pulse 108, very weak. Urine dark-coloured, containing one-eighth albumen. The man gradually sank, and died on the 11th at 6 P.M."

There was nothing to be done for him; his mind was gone; his pulse excessively feeble; there was evidence of some injury to his bowel, of a long-continued impediment to the flow of blood through the portal vein, and of bile through the bile-ducts.

After death the cavity of the abdomen contained about two pints of an opaque fluid. The external opening of the umbilicus communicated with the cavity of the abdomen. The liver, stomach, omentum, and intestines were matted

together and covered with a thick layer of lymph, so hard and vascular that it must have been of long standing. There were no adhesions between the parietal peritoneum and the intestines and omentum, probably because the man had effusion of serum sufficient to separate the parietal peritoneum from the other parts before adhesions formed. The parietal peritoneum was greatly thickened and reddened, and was evidently the seat of long-continued inflammatory action. The peritoneal coat of the stomach was covered with lymph and thickened, and was the seat of numerous ulcers. The lymph had organised, had become part of the anterior wall of the stomach, and then the seat of ulceration. The posterior part of the bladder was adherent to the sigmoid flexure and the rectum, so that there was no cul-de-sac between the bladder and the rectum. The liver was inseparably united to the diaphragm ; its lower edge was above the margin of the thorax.

On separating the adhesions between two of the coils of the small intestine, situated in the right iliac fossa (where the man had felt severe pain during life), an opening was exposed, about the size of a sixpence, out of which fæcal matter escaped. In the interior of the bowel, a large ulcer was found at the spot. The mucous membrane around was intensely red, and coated with dirty-yellowish lymph. The situation of the ulcer was in the ileum, about a yard and a half from the cæcum. The peritoneum over the ulcer was destroyed to an extent greater than that of the opening itself, so that the muscular fibres were laid bare as well from the peritoneal as from the mucous coat. As we looked at it *in situ* we thought that the opening might have been made from the peritoneum into the bowel. This is rare, but we thought it possible. On opening the bowel, however, it was clearly not so, for here the mucous membrane was considerably destroyed ; it was destroyed over an area larger than the opening, and larger even than the destruction of the peritoneum. Thus there had been ulceration of the outer side and ulceration of the inner

side, but from the congestion of the mucous membrane around, we knew that the perforation had occurred, as it usually does, from within outwards. Several small ulcers were subsequently found in the intestine which had not perforated, but only destroyed the mucous membrane. Thus it was clear that the ulceration had begun in the bowel. It was the result of the mechanical congestion of the bowel. I told you that inflammation of the mucous membrane of the bowel resulted from the mechanical congestion, but that it was catarrhal inflammation. As a consequence of this, deeper-seated inflammation with ulceration may occur, and here we had it so deep that it had perforated the bowel. The mucous membrane around the ulcers was of a deep mahogany colour.

The capsule of the liver was thickened, and the liver itself was too granular, but not contracted; the edge was thick and the tissue broke down easily under pressure. Evidently, although it was not a healthy liver, there was no such disease of the liver-substance as to seriously impede the flow of blood through it. It was not an ordinary cirrhosed liver. The gall-bladder was covered with old lymph, and its coats were thickened; it contained four gall-stones and scarcely any bile. The cystic duct was completely closed, and the hepatic duct and the branches of the portal vein and the common duct, all the parts in the hilus of the liver, were bound together by old adhesions and a large increase of the connective tissue. This was plainly the centre of the trouble. Here the lymph was the toughest and it was evidently the oldest. Here it was the most perfectly organised, but still greatly contracted, compressing the portal vein, compressing the cystic duct, compressing the ductus communis choledochus. All the branches of the portal vein had their coats greatly thickened and in one branch—that to the right lobe—was an old clot firmly adherent.

There were four gall-stones in the gall-bladder, but we had good reason to believe that they were not all the gall-

stones that had been there. I say, "not all," because their sides were flattened, and they were small gall-stones, and they did not seem to form the whole mass indicated by the peculiar flattening. We thought it probable, from the history of the man, from his having been several times in hospital with something wrong with his liver, that he had had gall-stones before, gall-stones passing down his cystic duct, or his ductus communis choledochus, which had led to inflammation, perhaps to ulceration, and to injury of the parts around. We know that such inflammation and ulceration do sometimes result from the passage of a gall-stone, and that now and then a gall-stone is thrown out by the ulceration into the parts around. We had no evidence here that ulceration had proceeded so far, but we had evidence of inflammation which had become chronic, and had ended in exudation of lymph, the man's habits and the climate he had lived in also perhaps assisting. Lymph thus exuded contracts, and an impediment is established to the flow of blood through the portal vein. Thus, I think that the origin of the patient's trouble, the origin of the inflammation in this particular situation, where it had such a damaging effect upon his health, was the passage of a gall-stone. The liver itself was really scarcely diseased. It contained a good deal of bile, from the damming back of bile into it, but the ducts were scarcely, if at all, dilated, and the cellular tissue between the lobules was a little increased. The obstruction to the flow of portal blood to the liver, had no doubt, diminished the formation of bile, and hence the absence of dilatation of the ducts in the liver. The weight of the liver was 3lb. 7 oz.

The spleen was large and tough, the capsule thickened and adherent; it weighed 1 lb. 10 oz. This was no doubt the result of the mechanically produced congestion. The mesentery was greatly thickened, coated with lymph such as covered the omentum; this lymph was due probably to the same cause which had led to the thickening of the intestines, to the enlargement of the spleen,—*i. e.*, the

mechanical congestion, and the inflammation secondary thereto. The kidneys were enlarged; the right weighed 6 oz., the left 7 oz. The cortical substance was broad and a little speckled with red. Probably the mechanical congestion of the kidneys, assisted by the habits of the man, had given rise to inflammation, and in his cachectic condition to that low form of inflammatory action which is followed by the exudation of a great quantity of protein granules which quickly experience fatty degeneration.

We must see, pretty clearly, considering how little history of the man we had, the course of his disease from its commencement to his death, and how the one disease, the one condition, followed mechanically upon the other; how the enlargement of his spleen, the vomiting of blood, the effusion into his peritoneum, the ulceration of his intestine, the perforation of his intestine, the distention of his belly, and the bursting of his umbilicus,—how all these were the mechanical results of the primary disease, the inflammation of the cellular tissue about the portal vein and the hepatic, cystic, and common bile ducts. The further result of this was changed nutrition, for he was very thin, and evidently his nutrition was interfered with by the damage to the abdominal tissues and organs, consequent on their mechanical congestion, and on the damming back of bile in the blood itself.—*Lancet.*

CANADA

Medical and Surgical Journal.

MONTREAL, FEBRUARY, 1874.

THE WEST HADDON TRAGEDY.

Recent exchanges give an account of a lamentable tragedy which occurred in England, we take the account from the *British Medical Journal* of the 17th ultimo. It appears that a Mrs. Gulliver, an elderly woman of 73 years, had been suffering for some time with symptoms referable to her heart, accompanied by attacks of fainting. Her physician who had seen her the day before her death ascertained the existence of disease of the heart by stethoscopic examination. He expressed a belief that she was in a very critical state, and advised her friends to be sent for. Her sister and a Mrs. Watts, and her niece Mrs. Waters, came to her house,—Mrs. Waters and Mrs. Watts sat up with her during the night. The following morning being Sunday, the doctor saw her and found her better. She ate a good breakfast, and asked Mrs. Waters to read to her, shortly afterwards the old lady complained of feeling faint. Mrs. Waters sprinkled some eau de cologne on her handkerchief, and about the bed, which revived her, and she asked for and drank some sherry and water. She complained of the room being close, and the windows were opened. At her request Mrs. Waters proceeded to read a chapter out of the Bible, and the old lady was repeating after her, when she suddenly stopped and apparently fainted. Mrs. Waters called for assistance; sent for the doctor; threw up the window sash to admit a full current of air. Some sherry was poured into her mouth, which she swallowed, but she did not

revive. The doctor arrived shortly after and pronounced her dead.

It appears that dame Rumour interfered in the case, giving rise to the suspicion of foul play, on the plea that Mrs. Waters had a reversionary interest in the property of deceased. A month elapsed, at length the body was ordered to be exhumed, and an inquest was held thereon. At the post mortem all the organs of the body were found healthy except the heart, which was in an advanced state of fatty degeneration, with very thin, soft walls. The contents of the stomach were examined chemically by Mr. J. D. Rodgers of London, and nothing but minute traces of morphia was found, such as would very likely be found in ordinary cough lozenges, of which deceased was in the habit of partaking.

Mr. Walker, the family physician, had in his evidence said, that after death he found a high temperature of the body. This induced the chemical expert to state that in consequence of such high temperature after death, he was of opinion that deceased had died from some volatile noxious substance, given to her immediately prior to death, but which he was unable to detect. Upon this testimony the jury found that Mrs. Gulliver died from poison, but by whom administered there was no evidence to show. A warrant was made out for the apprehension of Mrs. Waters, as she was one of the persons with deceased during her last illness. Mrs. Waters on hearing the result became very much excited, protested her innocence, and swallowed some poison, supposed to be strychnine, from which she died, and a second jury was summoned. Evidence was given at this second inquest which went to prove that Mrs. Waters was of a highly excitable temperament; that several of her relatives had been insane, and that on several occasions she had threatened to destroy herself, and yet a verdict of *felo de se* was rendered, which according to law, necessitated the burial of the body within three hours, without the benefit of clergy.

There are several points in this case which are instructive and which demand a passing remark:

In the first place Mr. Walker's assertion that he found a high temperature of the body after death in the case of Mrs. Gulliver, does not appear to be supported by actual thermometric observation, and therefore is inadmissible; it would not be received as evidence in any well constituted court of law. It was simply absurd of Mr. Rodgers on such testimony to start a theory which could not be in any way substantiated. In death from chloroform vapour the heart is the first to cease its beatings, respiration continues for some time after all pulsation has ceased; moreover the temperature of the body does not rise after death. Again the presence of chloroform in the blood has been proved in very minute quantity after three weeks' exposure, although the difficulty is admitted. If the death had been from Prussic acid vapour, the symptoms would have been sufficiently well-marked and the odour exhaled from the body unmistakable, so that the medical attendant who arrived at the moment of death could not have been deceived; besides which the action of chloroform, alcohol, ether and prussic acid, when taken, lower the temperature of the body after death.

The verdicts rendered by the coroner's jury in both cases would have disgraced a similarly constituted court amongst a people like the Ashantees. We in Canada, as a rule, are badly served in this respect, yet we believe that some difficulty would be experienced even in the back woods of our country to collect together twelve men so thoroughly deficient in mere common sense, as appears to have been the case with the jurors above alluded to. It proves the absurdity of continuing this court as a part of our judicial system. An enquiry in all suspicious cases of death is necessary, and could be better conducted by a magistrate, without giving him or his court the power to bring in a verdict of guilty of murder. After all the coroner's court is a mere court of enquiry. and the testimony adduced is usually

written down as it is given, and is submitted at the trial before the Court of Queen's Bench.

The most harrowing part of the whole tale is the fact that the body of the unfortunate Mrs. Waters was actually buried at night, her own husband reading over her remains the burial service. This calls to mind the dark and wretched doings of a past age, when the *felo de se* had to be buried at midnight in the centre of a cross road, and a stake driven through the body to prevent the spirit's return to bother the living. Such things have ceased to be even thought of in this nineteenth century, and we had almost supposed that the church had removed its ban, and in such a case as the present would have come to the rescue, and have done what was right, humane, and we must add Christian. For who dare judge that this unfortunate woman should be held accountable for an act of frenzied madness. To such as think otherwise might apply the words of Laertes addressed to the priest at the burial of his sister Ophelia:—

> " Lay her i' the earth,
> " And from her fair and unpolluted flesh
> " May violets spring !—I tell thee churlish priest,
> " A minist'ring angel shall my sister be,
> " When thou liest howling."—HAM. Act. iv. Scene 1.

VACCINATION AND SMALL-POX.

We publish elsewhere some very pertinent remarks by Dr. Baynes on vaccination, and as the subject is one of moment to the entire country, we cannot do better than allude to and quote from the experience obtained during the recent epidemic of small-pox, by one of the London, (England) distinct hospitals for that disease. This will be found in the last annual report of the Local Government Board, therefore there can be no doubt of its validity. It is useless to endeavour to convince anti-vaccination fanatics, if they cannot be convinced by the testimony of the expe-

rience given, in the early part of this century, when statisticians had to deal with thousands of cases of small-pox, how can the present hundreds be of any avail.

TABLE OF THE DEATHS AND RECOVERIES PER 1000 CASES OF SMALL-POX.

Degree of Vaccination.	Cases under 15 years.			Cases above 15 years.		
	Total.	Recovery	Deaths.	Total.	Recoveries	Deaths.
Unvaccinated.....	208	131	77	122	76	46
One or more bad marks.....	45	42	3	104	89	15
One or more Indifferent marks	12	12	0	75	66	9
One good Vaccination mark..	61	61	0	101	93	8
Two " " "	29	29	0	104	99	5
Three " " "	35	35	0	39	39	0
Four " " "	17	17	0	32	32	0
Five " " "	2	2	0	1	1	0
Six " " "	2	2	0	11	11	0

It will be observed by this table that of the unvaccinated children the mortality was 37 per cent. The death rate of those over 15 years who were unprotected by vaccination was nearly one half. Of the children protected by vaccination, amounting in the agregate to 158 cases, there was not not a single death, and of adults those protected by three or more good vaccination marks, there was no death from small-pox.

TESTIMONIAL.

We are happy to record that on New Year's Eve some thirty gentlemen met at Wetherell's Hotel, Bury, P.Q., and presented Dr. James McNice of that place with a testimonial valued at $200, accompanied by the following address :—

To James McNice, Esq., M.D., C.M.

Sir,—We the undersigned residents of the Township of Bury and vicinity, beg to tender you our thanks for the services rendered by you professionally during the four years you have been amongst us, and as a slight token of our appreciation of your services, ask you to accept this testimonial which we present to you on this occasion.

Hoping you may be long spared to practice your profession amongst us, whose esteem you have won by your kindness and attention to rich and poor alike.

We wish you and Mrs. McNice prosperity and health, and a happy New Year.

We remain your sincere friends,

JOHN MARTIN, J.P.
WILLIAM FAREWELL, J.P.,
And many others.

To which Dr. McNice returned a suitable reply, but which we regret space will not permit us to publish. The company then sat down to a substantial supper, served in mine host's best style.

THE SIAMESE TWINS.

We take this account from the *Medical and Surgical Reporter*, Philadelphia :—The twins, whose death we recorded in our last, were 63 years of age. The circumstances of their decease were as follows :—

On the Thursday previous the brothers were at Chang's residence, and the evening of that day was the appointed time for a removal to Eng's dwelling. The day was cold, and Chang had been complaining for a couple of months past of being very ill. The road leading from the two houses was very rough and frozen. Early in the evening they started upon their journey in an open waggon or carryall, and in a short time arrived at Eng's. Chang became chilled by the exposure and complained of being very cold, while his partner was in apparent good health, and grumbled because he had to sit by the fire. They retired that night, and in answer to an enquiry from the sick man's wife on Friday, he stated that he was much better.

On Friday evening they retired to a small room by themselves and went to bed, but Chang was very restless. Some-

time between midnight and daybreak they got up and sat by the fire. Again Eng protested and said he wished to lie down, as he was sleepy. Chang stoutly refused, and replied that it hurt his breast to recline. After a while they retired to their bed, and Eng fell into a deep sleep. About four o'clock one of the sons came into the room, and going to the bedside discovered that his uncle was dead. Eng was awakened by the noise, and in the greatest alarm turned and looked upon the lifeless form beside him, and was seized with violent nervous paroxysms. No physicians were at hand, and it being three miles to the town of Mount Airy, some time necessarily elapsed before one could be summoned. A messenger was despatched to the village for Dr. Hollingsworth, and he sent his brother, also a physician, at once to the plantation, but before he arrived the vital spark had fled, and the Siamese twins were dead.

Dr. Hollingsworth made an examination of the bodies, and found the "gordian knot" or band which connected them to be an extension of the sternum, about four inches in length and two in breadth. The band was convex above and in front and concave underneath. The two bodies had but one navel, which was in the centre of the band, and it is supposed that there were two umbilical cords branching from this.

The connecting link was found to be the ensiform cartilage, and was as hard as bone, and did not yield in the least. It is also stated that for some time previous to their death no motion was observable in the band. The Doctor said he did not think they would have survived a separation, not from the fact of being afraid of separating the arteries, but from fear of producing peritonitis. No hemorrhage would have been produced, so far as could be seen, as there were no arterial connections of any account.

ABSTRACT FOR THE MONTH OF JANUARY, 1874.

Barometer reduced to 32° Fahr., and to sea level; estimated height about 100 feet.

STATION.....MONTREAL. | OBSERVER.....THOS. D. KING

DAY.	THERMOMETER. 9 a. m.	3 p. m.	9 p. m.	Mean	Max	Min	Range		BAROMETER. 9 a. m.	3 p. m.	9 p. m.	Mean.	Rain and Sleet	Snow. Melted	Constant + 0.100 used in all Barometer Readings.
1	30.5	34 3	39.0	31 6	35.	25.2	10 1		30 152	152	.102	30 135			
2	18 5	27 0	.9 2	24 9	29 2	16.8	12 4		30.205	.16	.20	. 95			
3	36 8	39.5	40.5	38 9	40 5	29.2	11 3	Max.	30 139	.067	.9 957	031			
Sunday 4	43.5	45.5	47 2	45.4	47 2	38 2	9.0	27.2	29 925	.810	.717	29 817	(napp		Maximum of the month 47 2
5	21.0	.4	19 5	21 5	24 5	20 0	4 5		30 475	.5 6	.65	30 569			Greatest range of Bar. 0.939
6	13 8	18.3	21 3	17 5	22 2	10 4	11 8		30.5 7	.356	207	3 7		0.43	
7	2	33.0	33 0	32 7	33.5	21.0	12 5		29.9 5	.86	.834	29.875	1 95		
8	34 0	36.7	35.5	35 4	40 3	31.2	9 1	Mean of	29.384	384	.519	.428	0 7		Lowest Bar. 29.382, and daily mean
9	32 2	37.2	32 3	33.9	33.8	30 0	8 8	10 days	29 704	.652	.582	.646			
10	33.3	35.0	33 0	33 8	36.5	29 2	7 3	31.66	29.437	.496	.535	489		0.15	
Sunday 11	34.0	29 5	24 0	28 5	34 5	29.5	4 7		29.457	.627	.797	.690		0.05	
12	10 9	15 5	12.7	13 0	17 0	9 2	7.8		30.159	.241	.365	30.255			
13	9 8	13 8	9 8	11 2	14 8	7 0	7		30.473	452	.374	433			
14	11.5	17.5	10 5	11.5	15 3	7 8	7.5		30 039	29 886	.805	29 88		0.12	
15	10 2	10.0	5.7	8 6	11 5	8 5	3.0		29 687	637	627	.650			Lowest range of Ther. 3.0
16	4.1	5.5	3 2	3 6	6 5	0.9	5 6		29.828	.837	30 175	.9 0			
17	-0 5	0.8	2 0	.7	12.5	-5 5	16 0		30 421	.445	.380	30.415			
Sunday 18	19 2	31 5	24 8	25 2	32.9	10 8	22.	Mean of	30 58	.291	.214	288	0.46		Partly rain and snow, and on both days.
19	33.2	37 0	26	31	37 9	22.8	15.1	10 days.	29 899	.905	30.112	29.972			Highest daily mean of Bar.
20	5 0	11.3	6.0	7 4	12 2	2 8	9 4	14.89	30 571	.594	.653	30 6 6		0.23	Greatest range of Ther. 30.5
21	18.5	29.0	22 5	23 3	29.5	- .0	30.5		30 268	.15	13	173			
22	31.5	38	.9 8	33.4	39 8	21 8	18.0		29 844	.737	.5 9	29 29		0.47	
23	38 4	41 0	36 5	38.3	2 C	37.7	4.3		.9.547	527	30 026	.733			
24	17 5	21.3	13 0	17.3	24 5	14.0	1 .5		30 061	.095	.142	30 099			
Sunday 25	-4 5	4.2	-7 5	-2 9	4.5	-6.0	10 5	Min.	30 413	.419	.462	.499			
26	-15.3	-8 5	-9 3	-11.0	-8.	-18.8	10 5	18.8	30.633	.507	.387	.505			Minimum of the month -18 8
27	-3 1	-2 2	2 6	-2 5	2 8	-12.0	14 8		30 012	29.986	.885	29 954			
28	7.4	13 0	5.0	11.5	15.0	3.2	11 8		29.662	.780	9 5	.792	0.70		Partly 27, and 28 snow
29	2 5	6 0	3 4	4.2	6 0	1 0	5.0	Mean of	30.182	.172	.069	30.141		0.33	
30	-11.0	-4 1	-11.8	-9 0	-4 1	-12 5	8 4	11 days.	30.581	.598	583	589			Highest Barometer 30.598
31	-10 0	-0.2	-4 0	-4.7	0.0	-17 0	17 0	8.92	30.405	.381	.447	.411		0.05	
MEANS.	.....	....	.....	18.46	22.70	11.89	.....		.....	.....	.....	30.043			

Mean temperature of the month, 18.46; mean of the maxima and minima temperatures, 17.3; greatest heat on the 4th, 47.2; greatest cold on the 26th, 18.8 below zero—giving a range of temperature of sixty-six degrees. Greatest range of the thermometer on the 21st, 30.5; lowest range on the 15th, 3.0.

Mean height of the barometer corrected for temperature 32°, and reduced to sea level (constant applied + 0.100) 30.043; highest reading of barometer on the 30th, 30.598; lowest reading on the 8th, 29.382—giving a range of 1.216 inches.

Rain and snow fell on fifteen days; amount of precipitation when the snow was reduced to its equivalent of water, 5.64 inches. Reckoning 9 inches of snow to be equivalent to 1 inch of rain-water, the depth of the snow fall may be estimated at 2 feet 7 inches.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Case of Acephalous Monster of seven Months' Fœtation. By Francis N. Shirriff, M.D., L.R.C.S.E., Huntingdon, Quebec.

In the October number of The Canada Medical and Surgical Journal I reported a case of acephalous monster which had occurred in my practice shortly before. I again report another case which I met with a little over two months ago.

About the beginning of December last, I was asked to visit Mrs. B., who had been complaining for several hours. She was in the 7th month of her pregnancy, and on examination I found the os uteri slightly dilated. I remained in attendance six hours without much progress being made, and I determined, as in the previous case, to puncture the membranes as there seemed to be a large quantity of the liquor amnii. I had a vessel ready to collect it. A very great discharge took place, and in half an hour the child was born, precisely as occurred in the former case. On examining the child I found that the frontal, temporal, occipital and parietal bones, as also the brain and membranes were wanting, and that the base of the skull was covered with a thin purple-coloured membrane continuous with the skin. The child made no signs of life, and I cut the cord without tying it. A stream of blood issued from the cord, and I was obliged to tie it, shewing that the child had actually been born alive, but did not seem to possess

the instinct to breathe. Mrs. B.'s late history is very melancholy. She lived in this section of country some years and became the mother of a fine healthy boy, who still survives. Her husband and she removed to a distant State of the Union, and last summer, when she was about ten weeks pregnant she found her husband and his brother smothered in a well by mephitic air. Her health since her return home has not been good, and for a month previous to her confinement she became subject to rather alarming fainting attacks. The cause of the want of development of the brain of a child in utero, seems like other deficiencies of important parts, but little understood. The most ingenious theory I have seen is that of Professor Rudolphi of Berlin, who almost seems to have proved that these cases originate in hydrocephalus occurring at a very early period of the life of the fœtus. An account of this theory, a discovery of Rudolphi, is given by Dr. Beatty in the *Medical Gazette* April 17th, 1846. One fact seems to bear out this explanation of Rudolphi's, that in every case there is an excessive quantity of liquor amnii. See note in Ramsbotham's Midwifery. I have within the last two years met with two other cases of deficiency of parts,which are worth recording, one a fine smart boy, now over 4 years old, who has no hands or metacarpal bones except one thumb, and who has to hold things by his wrists. One foot is entirely gone from the ankle, the other foot is all right, except that the big toe looks more like a thumb. The other case has only a thumb and two fingers on one hand, and these fingers are grown together. There is also a great deficiency of ribs, and also part of the sternum.

Case of Fracture of both Femora, and humeri and laceration of Scrotum. By John Morrison, M.A., M.D.

Hugh McD———, æt. 4.—strong, stout boy, on November 18th, 1873, was standing near a perpendicular shaft in his father's flour mill. This shaft was only 5½ inches

from an upright pillar. The boy's clothes became entangled in the shaft whilst it was making 60 revolutions per minute, and before the mill could be stopped the little fellow had been carried through the space of 5½ inches 15 or 20 times.

Dr. Shirriff and myself were called in by Dr. Anderson of Ormston, a short time after the accident occurred. On administering chloroform, we found an oblique fracture of the upper third of the right femur, with considerable bruising of the soft parts. The left femur also was broken at the middle third. There was a comminuted fracture of the right humerus a little below the surgical neck, and a fracture of the upper third of the left humerus. The posterior half of the scrotum was severed from its perineal attachment, leaving the testes exposed. The right ear was partially detached from the side of the head, and slight bruises were to be observed on different parts of the body. Liston's Splint was applied to the lower limbs, but the upper portion of the right femur would not stay in position, so we were obliged to devise or adopt some other appliance. Although a novelty in this section, it was deemed advisable to try the weight and pulley system; accordingly the weight and pulley were put on both limbs, after the manner adopted in the Montreal General Hospital, save that we used bags of shot instead of iron balls. The plan was successful in every way, neat, comfortable, and no difference in the length of the legs. In other respects the case did well.

A case of Epilepsy in the puerperal state. By JOHN BELL, A.M., M.D., Read before the Medico-chirurgical Society, February 27th, 1874.

I met with the following case of Epilepsy in a parturient woman last summer, and consider some notes of it may be of interest to you, not only from the comparative rarity of this complication, but also on account of the field for investigation and discussion opened up by the etiology and

relations to each other of the whole class of convulsions occurring in the puerperal state. The horrible symptoms attending their manifestation, so painful to behold, and so dangerous to the patient, urge us on to fathom the mysteries of their causation, and apply effectual remedies for their prevention or relief.

Mrs. S., the subject of the malady, was a primipara, 27 years of age, and born in England. Her complexion is dark, and her temperament nervous. In the books to which I have had access I found the notes of only three cases of a similar kind, and in all of these the epileptic attacks began at the age of puberty, and in two it is mentioned that they were connected with irregularity in the production of the catamenia. The history of this case is similar, as the epileptic seizures, which at first occurred only during the night, began when she was 14 years of age. At this time menstruation took place only once, slightly, and did not occur again for five years, when it was fully established.

As is generally the case in these instances some unusual occurrence is given as the apparent cause of this unfortunate weakness, and here the onset of the attacks is attributed to fright from having seen the suspended body of a female companion who had committed suicide by hanging. This nervous excitement was also said to have been kept up, by her having frequently, late in the evening to carry letters to the post office in a garrison town in which she lived. Until her marriage, which took place about two years ago, she had two fits in the month, and after that event they became more frequent. During the first few months of her pregnancy she had about half a dozen fits altogether, which, she thinks, were more severe than formerly, but in the last months she was entirely free from them, and, as she says: "forgot all about them." In the fourth month of her pregnancy she was threatened with abortion, the danger of which, however, by the employment of rest and opium soon passed away, and I heard no more

of my patient until I was sent for on the 23rd July, when she thought labour had commenced, at its proper time. On making a vaginal examination, I found there existed a pretty free discharge, which was probably leucorrhœal, and also a free band about a third of an inch in diameter extending horizontally across the vagina, from side to side, about an inch and a half above its orifice. This band I divided. Although she had numerous pains during this and several following days, labour had not really commenced, nor was her full time apparently completed, judging from the condition of the os externum and cervix.

On the morning of Saturday the 26th July, I was sent for in a great hurry, as she had taken a most violent convulsion, during which, the prolonged spasms of all the voluntary muscles produced extreme congestion of the vessels of the head, with the most hideous hissing, snorting sounds on expiration. She had considerable difficulty in swallowing after the fit passed away. Another convulsion took place in the evening, and two or three on the following day. There was not at this time, nor had there been any œdema of any part of the body, nor did the most careful examination show the presence of any albumen in the urine.

I at once put her upon gr. xx doses of K. Br. every four hours, and afterwards added the same dose of chloral, to be given every four or six hours. as required.

Beginning on the 28th, I find the following jottings of the case, which I will transfer, as giving an idea of her state until delivery, which took place nearly two weeks after the commencement of this fearful nervous storm.

July 28th, morning visit; she had one fit last night (27th) and two shortly after 8 this morning. Slept well all night. Had xx gr. doses of chloral hydrate every four hours. Had had several pains of three minutes' duration without fits. Can drink better than formerly. Had one injection of beef tea at midnight, and an alvine evacuation at 5.30 a.m. Pulse 104; temperature 98·6.

11 p.m., 28th.—Was sleeping when I went in. Has had no chloral since 2 p.m. Had one fit about 4 p.m., and now seems more rational than she has been for some time. Pulse 98 ; temperature 99.

July 29th, 11 a.m. Had two fits since visit last night—one for three quarters of an hour. Has had several pains. Fits preceded by bearing-down pains. Had a fit of 15 minutes duration just before my arrival this morning.

July 30th, 11 a.m.—Had four fits since last night's visit. Bowels not moved. Is again taking the Bromide of Potass. at the rate 3ij per diem. Pulse 106; temperature 98·4.

30th, 5. p.m.—Had seven fits during the day ; ordered a pill of *Zinci Valerian* gr. j, *extract valerian* gr. iij every four hours.

At two or three of my visits I attempted to dilate the os uteri by the introduction of two or more fingers, but on the advice of Dr. Howard, who saw the case with me, desisted, to await the natural advent of labour, which would evidently be not long delayed.

July 31st, morning visit.—Slept soundly and had only one fit during the night.

Evening visit.—During the day had only two, what the nurse called "inward" fits, was not generally convulsed.

Pulse 112 ; temperature 98·4.

August 4th.—Had 4 fits last night.

August 5th.—Had only one of the slight "inward" convulsions.

August 6th.—Has not had any fit to-day. Head clear ; tongue clean, and better generally. Temperature 98.4.

Genuine labour pains began about 2 p.m., and I was sent for at 11.30 p.m.

There was no convulsion during labour, which was completed at 1 a.m. of the 7th. (The presentation was a vertex in the first position if I remember rightly.

Is doing very well. Has had no return of the convulsions. Is rather thirsty, with tongue a little coated. Has a slight headache, and her bowels are somewhat sore, but is otherwise doing well. Is to continue to take gr. xv. Pot. Bromid each day.

A small abscess formed in the left labium, which was opened and gave no further trouble. She nursed the child, a girl, and was up and about the house in two weeks from the time of her delivery. There was no return of the fits for nearly three months. Then they again began and have since continued, two, and sometimes three, times a month.

The child is now very fat and strong, and has exhibited at no time any tendency to convulsions, which took place in one of the cases reported by Elliot in his CLINIC.

In the case reported above, neither the bromide of potass nor chloral hydrat seemed to have their usual sedative effect on the excited nervous system. The convulsions at once diminished in frequency and intensity after the administration of the zinc and valerian, which were apparently more suited to the irritation of nervous exhaustion. induced by the number and force of the fits. I have little doubt that a full dose of morphia would have had a similar or even more beneficial effect, had it been exhibited. But, again, the comparative freedom from fits as parturition approached, might have been due to the direction of the disturbed nerve force into a new channel. The convulsions began, at first, with a disturbance or misdirection of a newly formed nerve force, in the non-evolution of the catamenia. It found a new channel for its action during pregnancy, when its abnormal manifestation ceased—but which was again exhibited when another change was about to take place in the structure and function of the uterus owing to the completion of gestation.

1. BEAVER HALL TERRACE,
Feb. 27th, 1874.

HOSPITAL REPORTS.

Case of Scorbutus, treated by Iron tonics and Dieting, under the care of DR. WRIGHT.

F. D.——, aged 33, schoolteacher, a tall well made man, but looking pale and delicate, was admitted into the Montreal General Hospital on the 5th February, complaining of pains in the legs, and of a number of purple patches on the limbs. He is quite grey, but states that his hair commenced to turn when he was 18. He has generally enjoyed good health and has not suffered from dysentery, hæmorrhoids, or other diseases causing loss of blood, with the exception lately of epistaxis. For nearly a year he has been living chiefly on bread and butter, eating meat only about once a month. and using no vegetables. About three weeks before his admission he got his feet wet, this was followed by pains in the muscles of the thighs and legs, swelling about the ankles, and the eruption of a fine red rash, gradually becoming purple. The pains in the limbs increased so as to make him complain when he attempted to stretch out his legs or walk. He had diarrhœa, the bowels being opened three or four times a day, but no blood being noticed in the stools.

On admission the pains in the limbs were still present, and he walked lame. His face was pale, tongue flabby, gums spongy, and a large purple patch was found on the inner side of the left thigh, about 6 inches long by 4 broad, looking like a large bruise, dark in the centre, and becoming yellowish-green round the edge. Over the outer ancle which, along with the foot, was somewhat œdematous, was also a purple patch. Patches, similarly situated and nearly the same in hue, were also found on the right leg, and numerous petechial spots were also noticed on the anterior surface of this extremity.

He was put on half diet with porridge and milk, beef-tea and chop, and was ordered 6 lemons in the 24 hours, also the following mixture :

R. Tinct. Ferri Mur. 3ijs; Quinæ disulph 3js ; Syrup Zingib oz. i. Aquæ Acid. ad oz. vi ; dessert-spoonful in water every two hours, and to remain in bed.

Feb. 7th.—Ordered Potass. Chlor. 3i. Aq. oi., as a drink every day.

Feb. 9th.—The ecchymoses are becoming paler, and of a more yellowish color.

He has had no diarrhœa since his admission. Gums somewhat less spongy.

12th.—He can move his limbs more freely, his appetite is now good. The patches are fading.

13th.—Ordered 2 eggs.

16th.—The œdema of the left foot has nearly disappeared. He can move his limbs freely ; the pains in the ankles have disappeared.

20th.—The purple patches have disappeared ; the sponginess of the gums has gone ; his color is better, and there is generally a marked improvement in his condition ; he is allowed to get up and walk about.

23rd.—Discharged cured.

Case of Typhoid Fever. Hæmorrhage from bowels, and death. Great enlargement and Ulceration of Peyer's Patches found at Post Mortem. Under the care of Dr. Ross.

L. A———, aged 19, well nourished, was admitted into the Montreal General Hospital on the 5th January, under the charge of Dr. Ross. She had been employed in a store and of late had very long hours.

For about 10 days before her admission she had been feeling unwell, and complained of headache, loss of appetite and pains in the back and down the limbs. On the Sunday before her admission she was obliged to take to her bed,

and the following day came to hospital. On admission her expression was dull, cheeks somewhat flushed, pupils large, tongue furred, with red tip and edges. Some abdominal tenderness but no spots. No diarrhœa.

She complained of headache and pain in the back.

On the evening of the 5th, her pulse was 120. Temperature 103 2-5. She was ordered Pulv. Rhei. Co. 3i. Milk diet, with extra milk.

6th.—Morning.—Pulse 120; Resp. 28; Temp. 101 2-5.

Condition much the same; bowels acted once since yesterday.

Evening.—Pulse 120; Resp. 28; Temp. 103 3-5; sleeps pretty well. No diarrhœa, no head symptoms.

7th.—Morning.—Pulse 120; Respiration 28; Temperature, 102 3-5; tongue more dry.

She was ordered the following:

R. Liq. Ammon. Acet. oz. ijs. Tinct. Aconit. M. xxxvi. Aq. ad oz. vi. Tablespoonful every 4 hours.

Evening.—Pulse 130; Respirations 28; Temp. 104.

8th.—Bowels opened several times since yesterday. Motions loose and rather dark in color. Turpentine stupes followed by poultices, ordered to be applied over bowels. Pulse, 126; Resp. 28; temp. 104 1-5.

9th.—Slept pretty well last night; tongue much the same; bowels opened twice since yesterday. Complains of great weakness. One or two spots noticed. Tenderness in right iliac fossa. Not much tympanites; has a slight cough but no expectoration, and no physical signs of any moment discovered by auscultation or percussion.

Morning, pulse 120; respiration 26; temp 102. 1-5.

Evening, pulse 120: respiration 28; temp. 102 1-5.

10th.—Morning, pulse 120; resp. 28; temp. 101 1-5.

Evening; pulse 120; resp. 28; temp. 102 3-5. Bowels opened twice.

11th.—Morning, pulse 120; resp. 28; temp. 101 3-5. One or two new spots. Ordered more milk and corn starch. Not sleeping so well at night. Tongue smooth and glazed.

Evening, pulse 120; resp. 28; temp. 102 4-5.

12th.—Morning, pulse 120; resp. 28; temp. 101 3-5. Ordered a sleeping draught, containing Potass. Bromid, Chloral Hydrat. aa gr. xv. 7.30 p.m., pulse 120; resp. 28; temp. 100 1-5.

Bowels open this morning; motion scanty and containing a little blood.

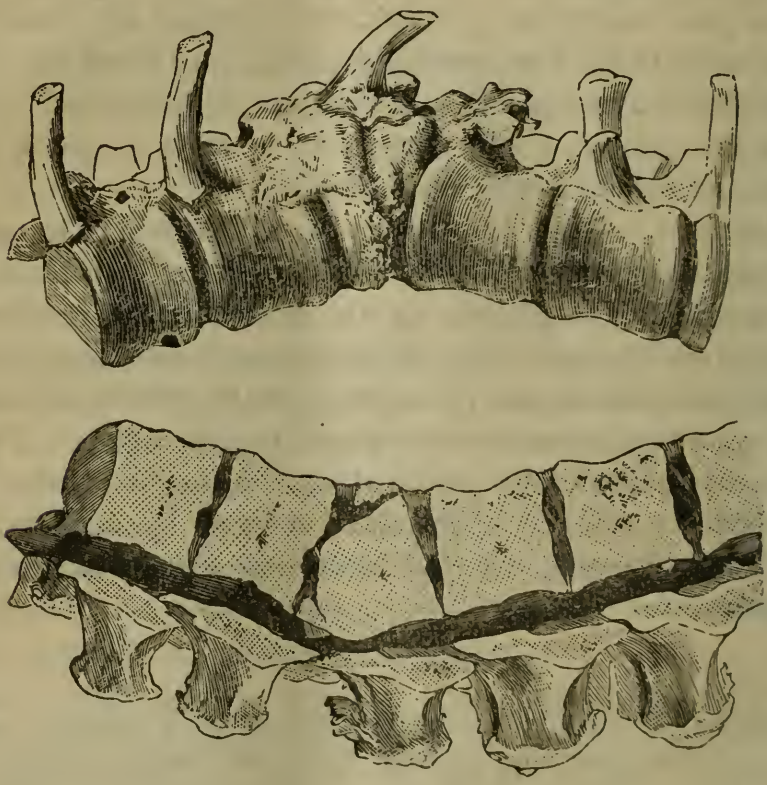
11. p.m.—Sleeping quietly; not up since Dr. Roddick was called to see her towards morning, and found that she had passed a considerable quantity of blood at stool. He gave her gallic acid and stimulants, in spite of which, she sank and died at 8 a.m., on the 13th.

Autopsy,—Rigor mortis pretty well marked. On opening the abdominal cavity no signs of peritonitis presented themselves. On slitting up the bowel in the neighborhood of the iliocæcal valve, Peyer's patches were found very much increased in size; one being nearly two inches long, and containing numerous deep and ragged ulcers. They were also considerably raised above the mucous surface of the bowel. A small deep ulcer, covered by a small clot was also observed. Clotted blood was also found in the bowel.

Case of Fracture of the Spine from indirect Violence. Loss of Sensation and motion below the seat of Injury.—Death, after eighty-six days. Post mortem appearance of the parts. Under the care of G. E. Fenwick, M.D.—Reported by Mr. J. C. Cameron, House Apothecary of the Montreal General Hospital.

J. A., æt 32, a healthy vigorous young man was admitted to the Montreal General Hospital on the evening of February 1st, 1873, suffering from a severe injury to the back, received while tobogganing. At the time of the accident, he was seated in front with his feet in the "Hook," and while endeavoring to steer clear of some ladies, who were coming up the hill, his toboggan ran at full speed against

a mound of ice ; his feet came with such force against the mound, that his body was jerked violently forwards, his back bending so sharply and quickly upon itself that his head almost touched his toes ; the toboggan veered and he rolled off upon the snow. Dr. Fenwick was immediately summoned, and advised removal at once to the Hospital where he arrived about 6 p.m.



On examination, absence of the spinous process of the 12th dorsal vertebra was ascertained—neither sensation nor motion below the seat of injury—no bruises nor signs of violence in any other part ; not quite recovered from the shock of the accident. There was obviously injury to the spinal cord, but to what extent or of what nature, was by no means clear. Accordingly, to relieve pressure as much as possible, he was placed face downwards upon a water bed, with an air cushion supporting the abdomen opposite the seat of injury, in order to arch the back ; the head and extremities were consequently lower than the rest of the

body. A gum-elastic catheter was passed into the bladder, tied in situ, and connected with a urinal by means of a rubber tube; ice-bags were kept constantly to the back. Diet liberal and nutritous.

On the *Second day*, he became delirious at times. Dr. G. W. Campbell was called in consultation, approved of the treatment, but gave no hopes of ultimate recovery. As the delirium continued, and the cerebral congestion became great, on the *Sixth day*, his position was altered, and he was placed on his back. At the same time an injection was given which brought away a copious stool. The urine at this time was thick, alkaline, and ropy. Notwithstanding the water-bed and pads, bed-sores had formed over both anterior superior spinous processes of the ilium, and also on the knees, showing great want of vitality. There was no positive sensation below the injury, although at times he imagined that he had slight feeling at different points both above and below. On the *Eighth day*, he was removed into the largest and most cheerful private ward in the hospital.

On the *Ninth day*, a consultation of the entire staff was called, to consider the propriety of cutting down on the depressed vertebra, and raising it, or trephining, as the nature of the case might demand. But considering the unfavorable statistics of operation, it was decided not to interfere, but to make him as comfortable as possible; keep up his general strength, prevent or retard bed-sores as far as practicable, and in fact give nature every chance to effect a cure. The patient himself was very confident and hopeful, and fully determined to get well, and seemed to hope against hope, to the very last. In spite of all efforts, however, the bedsores increased in extent; the one on the left knee, opened into the joint, so that the eroded cartilaginous extremities of the tibia and femur were readily felt. The legs became swollen and œdematous, and pus burrowed in every direction. The sore on the right hip also opened up the joint, and a sac of pus was formed in the cavity. Wherever there was the slightest pressure, even

for a few hours, a bed sore formed. The bladder was washed out with salt and water every fifth day, and an injection administered per rectum, about every tenth day, to clear out the bowels thoroughly, although motions to a greater or less extent were passed involuntarily every day. Having no sensation below the fracture, these immense sloughing sores did not trouble him at all: but he did suffer a great deal from one situated directly over the seat of injury, and from two others on his back, the upper margins of which came within the bounds of sensibility. The pain he described as being sharp and stinging, becoming at times almost unendurable, especially if the slightest pressure was made upon them; it was always worse at night, but great relief was always afforded when the sores were dressed, and the clothing comfortably rearranged. Pyrexia and delirium supervened towards evening—More marked after the third week. Chloral in 15, 20, and afterwards in 30 grain doses, was administered at night, with good results; a hacking cough set in, due, probably, to the implication of the intercostal nerves from the extending loss of nervous power. His memory became much impaired, especially during the last three weeks of his life; at first this was noticeable in his losing all recollection of conversations with friends or calls from visitors, although he spoke quite rationally and sensibly; then his talk became more rambling, he used to mis-call persons and things, forget what he was saying, and in the middle of a question or answer, wander off into something totally different. He was a great dreamer, and seemed to dwell upon these dreams with a morbid delight, assigning them peculiar significance. For the last three or four weeks, he was subject to peculiar chills, no doubt pyæmic in origin. They came on regularly about 9.30, a.m. and lasted till 1 p.m.; and again at 10 p.m., lasting till 2 a.m. The cold sensation he described as seeming to start from his toes, proceeding with a wave-like motion till it reached the head, when another chill began at the toes and ran the same course, chill following chill in rapid suc-

cession. The period of cold was followed by one of warmth and comfort. It is a strange circumstance, that chloral had no effect whatever during a chill ; and indeed he became so well aware of this, that latterly he refused to take his draught during these periods, saying he did not wish to waste it. During these rigors, his temperature ranged between 103° and 104°. The pulse was shorter and quicker, sometimes running up as high as 160. The skin was dry and hot.

From a number of observations made, when free from chills, the following record was obtained ;

	MORNING.	EVENING.
Temperature	100° to 102°	101° to 103°
Pulse	110 to 125	135 to 150
Respirations	18 to 22	18 to 22

During the last two weeks he kept constantly trying to blow his nose, but seemingly with very little success, probably from paralysis of the abdominal muscles. The paralysis at this time seemed to extend somewhat, and then the bedsores troubled him no more ; he felt perfectly easy and comfortable, the cough being the only annoyance. The pus, which kept pouring out from the large sloughing sores, and which burrowed in every direction through his legs, was particularly fœtid and sickening ; so much so that the attendants could not remain in the room without thoroughly disinfecting it several times a day. Active delirium appeared about twenty-four hours before his death. At 2 p.m., April 27th, a very urgent attack of dyspnœa came on, so severe that his friends were sent for. Stimulants were given freely, and mustard applied to the chest ; he recovered somewhat about 5 p.m., but at 7 p.m. he was seized with a second attack which lasted till he died at one o'clock the following morning April 28th, 1873. The only medicine administered during his illness, was the ordinary Nitro-muriatic acid mixture of the Hospital, given to stimulate his liver, keep his urine acid, and consequently less irritating, and serve as a general tonic.

Autopsy.—Thirty-five hours after death. Internal organs quite normal. The spinal cord was removed, and found to be much softened and crushed—almost obliterated at the fracture—quite hard and healthy above the injury, but soft and collapsed below. A preparation was made of the bone, which at once explains the nature of the accident.

The engraving at page 396 gives a faithful representation of the specimen which has been placed in the museum of McGill University.

Reviews and Notices of Books.

A Practical Treatise on the Diseases of Children. By J. Forsyth Meigs, M.D., one of the Physicians to the Pennsylvania Hospital: Consulting Physician to the Children's Hospital, &c., and William Pepper, M.D., Lecturer on Clinical Medicine, in the University of Pennsylvania, &c., &c. Fifth Edition,—revised and enlarged; 8vo. pp. 1008. Philadelphia, Lindsay & Blakiston, 1874.

The work of J. Forsyth Meigs on diseases of children, has been a favorite with the profession for some years past. We remember it well in years gone by, and frequently profited by the perusal of its pages. The present edition, which is the fifth of the series, has received many additions, and a thorough revision. Modifications will be found in such parts of the work, which have been called for, by a change of views on the part of the authors, or by recent researches by other workers in this department of medicine. Several articles which appeared in the last edition have been rewritten, and there has been added to this edition articles on Pulmonary Emphysema, Pneumothorax affections of the Tonsils, Retro-pharyngeal Abscess, Malarial Fevers, and Scrofula.

Other changes in the body of the work will be found, these chiefly with a view of keeping the work within ordinary proportions. It is a thoroughly practical work, and will be found of use to the busy practitioner, as its teaching is plain, and the author lays before the reader the results of his experience, extending over a quarter of a century. We heartily recommend it to our readers.

The Puerperal Diseases—Clinical Lectures delivered at Bellevue Hospital. By FORDYCE BARKER, M. D., Clinical Professor of Midwifery and the Diseases of Women, in the Bellevue Hospital Medical College, &c., &c. 8vo. pp. 526. New York, D. APPLETON, & Co., 549 & 551 Broadway, 1874.

This work consists in a revision of Clinical Lectures on the Diseases of Women, which the author has been in the habit of delivering before his class at the Bellevue Hospital School. In his preface the author eulogises his branch of the profession, claiming that "at the present day, for the "first time in the history of the world, the obstetric depart- "ment seems to be assuming its proper position, as the "highest branch of medicine." To this we must take exception, and simply observe that if the obstetric branch of medicine has hitherto occupied an inferior position, the profession has itself alone to blame. The custom of licensing ignorant women to practice that branch is, even in our day, heaping discredit and bringing disgrace on the obstetric art. So that it requires a large share of moral courage for any man to devote his time exclusively to that department of medicine with the possible chance of being regarded by the public as on an equal footing with the *sage-femme*.

In times gone by it was the custom for old and neglected bawds to take up the practice of a midwife, and even at the present time many a retired harlot, who from advancing age finds her trade less profitable, forsakes the path of misery and sin, to enter on one, at least, more respectable ;

how, then, can we wonder that the practice of midwifery has been hitherto regarded as beneath the position of a scientific gentleman. All lovers of the art of Medicine and Surgery see in some one particular branch, which they themselves have selected, a super-excellence ; so that in all charity they are to be excused if they consider that theirs is the highest branch—the most important branch to society. It is only another illustration of the truth of the doctrines inculcated by the old fable wherein the tanner declared that for the defence of the town in which he lived, and which was about to be besieged : "There was nothing like leather."

Our author goes on to say ; "A man may become eminent "as a physician and yet know very little of obstetrics ; or "he may be a successful and distinguished surgeon, and be "quite ignorant of even the rudiments of obstetrics. But "no one can be a really able obstetrician unless he be both "Physician and Surgeon." Now we cannot agree with our author on this point as it does not accord with our experience. There is certainly a growing appreciation of the importance of this department of the *Ars Medica*, not that it holds superior rank, but because that it had been neglected, and required a mind like that of Simpson and others to stimulate observers to meritorious research.

The work before us consists of twenty lectures, in which are discussed the following subjects : Puerperal Convalescence ; Diet of Puerperal Women ; Laceration of the Perinæum ; Thrombus of the Vulva and Vagina ; Albuminuria and Convulsions ; Lactation ; Mastitis ; Puerperal Mania ; Relaxation of the Pelvic Symphyses ; Phlegmasia Dolens ; Puerperal Thrombus and Embolism ; Puerperal Phlebitis ; and Metritis ; Puerperal Peritonitis ; Pelvic Cellulitis ; Puerperal Septicæmia and Pyæmia, and Puerperal Fever. It is very practical and contains many suggestions of value both to the Practitioner and Student of Medicine, and we cordially recommend it to our readers.

Medical Lexicon: a Dictionary of Medical Science, containing a concise explanation of the various Subjects, and Terms of Anatomy, Physiology, Pathology, Hygiene, Therapeutics, Medical Chemistry, Pharmacy, Surgery, Obstetrics, Medical Jurisprudence, &c., &c., with Accentuation and Etymology of the terms. By ROBLEY DUNGLISON, M.D., LL.D. Late Professor in the Jefferson Medical College, Philadelphia. A New Edition, enlarged and thoroughly revised. By RICHARD J. DUNGLISON, M.D. 8vo. pp. 1131.—Philadelphia, HENRY C. LEA, 1874.

Dunglison's Medical Dictionary has been for years past a necessary adjunct to the library of every Medical man, and to the student of Medicine it is indispensable, as it is almost the first book he procures at the outset of his studies. The late Dr. Dunglison conferred an everlasting obligation on the profession, when some forty years ago he first published this work. As time elapsed and changes occurred, fresh and enlarged editions had to be brought out.

We are happy to observe that Dr. Richard J. Dunglison, the son of the late venerable and erudite author, has, with his father's spirit and energy, given evidence in this new edition, that the usefulness of this work will not be lost; and that year after year, as occasion may require, the profession may look forward to the publication of more complete editions of this work which has become indispensable to the library of every practitioner.

The Science of Medicine and Surgery has received such remarkable additions to its nomenclature during the last few years, that to take up an ordinary work on any subject connected therewith, the reader is at every second line puzzled and embarrassed at the number of terms used which are foreign to the English language. Without such a work as the present, or without a familiar acquaintance with the Greek and Latin languages he would be unable to comprehend what he read. It is not in our day, considered, that the beauty of composition consists in simplicity of style;

writers appear to supplement their lack of originality, by the introduction of terms, not commonly in use, and which have been vulgarly called jaw-breakers, which is a most expressive term. We have observed some persons in attempting to pronounce a difficult but possibly expressive term, stutter and stammer over a syllable or two until we became painfully impressed with the danger to their jaws ; nor would we have been surprised had an accident occurred, for the contortions and muscular spasm appeared to be such as would break any ordinary jaw bone, unless made of stuff similar to that used by Sampson in slaying the Philistines. We heartily recommend this book, although it is such a familiar old friend that we feel convinced that no amount of eulogy is required to induce those seeking for information to secure a copy. It is to be had of Dawson Bros., St. James Street.

Toxicology—Poisoning by Coffee.

H. Curschmann gives in the *Deutsche Klinik* for 1873 (p. 377-380) a careful report of the case of an anæmic woman, who, having a groundless idea that she was pregnant, took, for the purpose of procuring abortion an infusion of 250 *grammes* of slightly roasted coffee in 500 *grammes* of water. Two hours and a quarter afterwards, her mind was confused ; the cauntenance was pale and very anxious, and there was violent trembling of the limbs ; she had very severe dyspnœa ; the breathing was difficult and quick, while the state of the lungs was normal. The pulse was frequent and very tense, and the arteries were contaacted ; the action of the heart was violent ; there were frequent diarrhœa with tenesmus, and frequent discharge of large quantities of urine of low specific gravity. In the evening, there was an improvement under the influence of morphia ; and on the third day the patient had quite recovered.—*Centralblatt fur die Medicin. Wissenschaften*, December 13, 1873.

Periscopic Department.

The Siamese Twins.—Official Report of the Autopsy.

A special meeting of the College of Physicians of Philadelphia was held at the hall, Wednesday evening, February 18th, for the purpose of hearing the report of the Commission on the Siamese Twins. Dr. W. S. W. Ruschenberger, United States Navy, in the chair.

The bodies of the Siamese Twins being upon the table, the meeting proceeded to hear the report of Drs. Pancoast and Allen. On behlaf of the Commission, Dr. Pancoast stated that the dissection not having been entirely completed, their report would be a verbal one, to be followed at some later date by a memoir upon the subject. He further remarked that it had been agreed that he should consider chiefly the surgical aspect of the matter in hand, whilst to his colleague had been assigned the demonstration of the anatomical peculiarities.

Dr. William H. Pancoast said :

Mr. Chairman, and Fellows of the College :—Having been requested, as a member of the Commission, to open the discussion this evening, I will say briefly, in reference to this monster of a symmetrical duplex development, joined as many of the Fellows now know, at the ensiform appendix, and also here at the omphalos or navel, that at the investigation which we made on the first occasion at Mount Airy, I made the opening incision of the body on the line for the ligation of the primitive iliac, on the right side : Dr. Allen made the incision on the left. The object was to reach the great vessels,—the aorta and the two primitive iliacs,—and to force the injecting material which we use for embalming (chloride of zinc) up the aorta and down the iliacs until it ran from the incisions made in the

fingers and toes. It flowed freely through the blood-vessels of Eng, owing to the ossified condition of his arteries; the injection in Chang, was, however, not so successful, owing to decomposition in the tissues and blood-vessels. It was necessary to repeat the injecting process several times in order to preserve the body. The arteries of Chang were found to be very much decomposed—quite rotten, in fact.

In Dunglison's Medical *Dictionary* we find the scientific name given for the Siamese Twins, in the classification of teratology, to be *Xiphopages;* and in referring to the admirable article on "Diploteratology," of Dr. G. J. Fisher, (published in the *Transactions of the Medical Society of the State of New York* for the year 1866,) it will be found that the twins belong to the class of *Anacatadidyma.* In his classification of double monsters he makes three orders: *Order first—Terata catadidyma;* derived from *teras, teratos,* a "monster," *kata,* "down," and *didumos,* a "twin." *Definition*—Duplicity, with more or less separation, of the cerebro-spinal axis, from above downward. *Order second—Terata-anadidyma*, derived from *ana* "up" or "above," and *didumos* a "twin." *Definition*—duplicity, with more or less separation of the cerebro-spinal axis from below upwards, or from the caudal towards the cephalic extremity of the neural axis. *Order third.—Terata-anacatadidyma*, derived from *ana,* "above," *kata* "down," and *didumos* a "twin," *Definition,* duplicity, with more or less separation of both the cephalic and the caudal extremity of the cerebro-spinal axis, existing contemporaneously. In this order, we think, the monster now before us might be called an *Omphalo Xiphodidymus.*

Thus we have the scientific nomenclature of this monster. Of course, the consideration of greatest interest to the profession, and one of the main reasons why the Commission made such exertions to obtain this post mortem, was that the American profession might not be charged with having neglected an effort to obtain an autopsy, which would solve the mystery of their union. The feature of greatest interest

is connected with this band—about four inches long, and eight inches in circumference. In addition to this, there are other points of importance in teratology, in regard to the fulfilment of the law of homologous union, in relation to the juncture of the recti muscles, and the fasciæ of the obliquus and transversalis at their point of meeting in the centre of the band. In regard to the position of the hearts, we think their apices present toward each other: but we have not yet opened the thorax. The livers we have found to approximate to each other and to push through the respective peritoneal openings into the band. We extended our incisions to the margin of the band in front. By placing my hand in the peritoneal cavity of Eng and my colleague placing his hand in the peritoneal cavity of Chang, we pushed before us processes of peritoneum, which ran into the median line of the band; and we could feel our fingers in the lower portion of the band, behind the median line, with a distinct layer of peritoneum between them, demonstrating at once the prolongation of the peritoneum into the band, and the complete separation of one peritoneal cavity from the other at this median line. Above that we felt some traces of vascular connection, apparently running from one liver to the other; but this we will examine into when we have a better opportunity of carefully dissecting and examining what vascular structures may exist. We also noticed that in turning off the flaps consisting of the anterior walls of the abdomen, the hypogastric arteries, as illustrated by the diagram on the blackboard, ran upwards in each body into the band. We lost them in this way as we think, toward the common umbilicus in the anterior inferior surface of the middle of the band.

It is probable that the two hypogastric arteries on each side passed through this umbilicus. Whether or not there were two umbilical veins, we have not yet been able to decide, nor to answer the question whether the umbilical cord was double or single, and composed of the four hypogastric arteries and two umbilical veins, or whether the placenta was single, double, or twin.

We also recognized that the ensiform appendix, as shewn in the diagram of each side, was prolonged and united in middle line. On our later examination we find that ere is complete continuity of structure of the cartilages, no true joint at the middle line, although it is possible there may be some small synovial sacs farther up. The motion is mainly due, as I here demonstrate to you by moving these one upon the other, to the elasticity of the connected ensiform appendices and intervening fibro-cartilages.

In regard to the vascular connection of the band, we have not yet been able to make so thorough and careful an examination as we wished ; but still, in throwing coloured plaster into the portal circulation of Chang, it has been found to flow through the vessels of the upper part of the band into the portal vessels of Eng. So that the surgical anatomy of the band consists of the skin and fascia which cover it, the two separate peritoneal pouches which meet in the middle, the large peritoneal pouch, the vascular connection, to whatever extent that may exist between the two portal circulations, and the remains of the hypogastric arteries in the lower portion of the band. Thus the main difficulty in any operation [for section of the band would seem to be in regard to the peritoneal processes and the portal circulation. The anastomosis which may exist between the internal mammary arteries and the intercostals in the integument in the upper portion of the band, of course would present no difficulty.

I will not venture upon any further remarks as to the surgery of the case, while there are so many distinguished gentlemen present more competent than myself to give an opinion. At the same time, operations on the peritoneum may not be considered so hazardous in this day, when ovariotomy, gastrotomy, and even Cæsarean section are so often performed. The peritoneum-pouches themselves would not present so great a difficulty as might be anticipated, under pressure and acupuncture, by which the sensitiveness of the

structure might be so altered as to permit of a section. I was informed at Mount Airy, that in Paris, a surgeon had made the experiment of applying pressure upon the band, and it was reported the twins had fainted in consequence. I could not ascertain, however, whether this was from fright, design, or actual pain.

As Dr. Hollingsworth is present it may be proper for me to mention a fact which that gentleman can corroborate, that Eng was the stronger physically and Chang was the stronger mentally. The same difference was observable in their characters. Chang was more irritable than Eng, especially since an attack of paralysis with which he had been afflicted—this being in the side next to Eng. The latter had not only to bear with the irritability of his associate, but also to support one-half his weight. Among other peculiarities, Chang would sometimes break useful articles, or throw them in the fire.

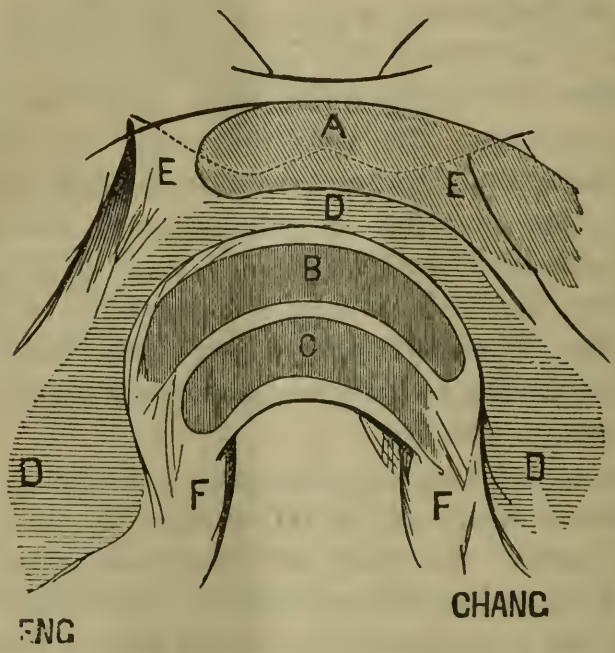
In conclusion, let me say that when I turned up the skin and superficial fascia of the H incision on the posterior part of the band, I was struck with the development and the strength of the abdominal aponeuroses. The fibres arched, interlaced, and developed into a strong fibrous band about a quarter of an inch wide, running round the median line, although there was no actual joint in the cartilage.

Professor Harrison Allen said:

Mr. Chairman: I will probably best discharge the duty devolving upon me by at once proceeding to a somewhat more minute anatomical description than Dr. Pancoast has given, this being in accordance with the understanding between us in reference to the evening's exercises.

Perhaps it would be best to point to that simple diagram upon the blackboard before considering the subject more fully in detail. As Dr. Pancoast has informed the Fellows, there is a union of the twins at the two ensiform cartilages, which are very firmly joined in the centre, Eng's process being the more robust of the two. You will observe that there is a point of conjunction between the two processes

which is not quite in the median line of the band. In the centre of the band is seen an elliptical space, which suggests the presence of a synovial cavity, with fibro-cartilage. It is probable that the ensiform junction is of the character of a synchondrosis, with a median bursa-like sac; neither ensiform cartilage is ossified.



DIAGRAMMATIC REPRESENTATIONS OF THE BAND.

A, upper or hepatic pouch of Chang.
E, E, (dotted line,) union of the ensiform cartilages.
D, connecting liver band, or the tract of portal continuity."
B, the peritoneal pouch of Eng,
C, the lower peritoneal pouch of Chang.
F, F, lower border of the band.

Below this point in the diagram, you see a number of differently-lined tracks. The lower one (C,) immediately above the umbilicus, is only separated from the skin by a very delicate layer of tissue (so that with the finger introduced into the pouch and moved, there is a decided indication of motion in the skin) on the under surface (F,F) of the band.

This pouch passes across the abdomen of Chang, and is lost in the duplicature of the suspensory ligament of the liver of Eng. The finger passed upward to the band from

the abdomen of Eng crosses the band above the pouch just mentioned, and is lost between the layers of the suspensory ligament of the liver of Chang. When the significance of the round ligament at the free border of the suspensory ligament is remembered, the relations of these pouches directly suggest that they have had essential bearings to the umbilical vein of the funis, and might be provisionally termed the *umbilical pouches*.

Above Eng's pouch, (B,) and between it and the under surface of the ensiform conjunction, is a second pouch (A) prolonged from Chang's abdomen, which fairly reaches the peritoneal cavity of Eng, but is not continuous with it. Extending up into this pouch from Chang's abdomen is a process which suggested to the Commission the possibility of the transit of hepatic vessels. This view was rendered more probable from the fact that a similar process passed up into the band from the liver of Eng. Accordingly, the plaster injection, colored by ultra-marine, was thrown into a tributary of the portal vein of Chang, when it was observed that the fluid passed freely into the liver of Eng, as well as into the mesenteric veins proper. It is my own hypothesis that this bond of union (D) was the true hepatic tract; but in its present state, in the absence of evidence of any parenchymatous admixture about the vessels thus crossing the band, we prefer to demonstrate the transit as the *tract of portal continuity*.

In the fœtal condition it is very likely that this large space, (A,) the upper pouch, now continuous with the abdomen of Chang only, was entirely occupied by true liver-tissue, which, as maturity was attained became smaller, and left an empty space. Hence I propose to call this upper pouch the *hepatic pouch*. The contraction chanced to be greater on Chang's side, in harmony, it may be, with other evidences of a weaker and less developed type, which is so apparent in many of the tissues of Chang. Now, with reference to the demonstration. As Dr. Pancoast has already informed you, the incisions in the abdomen were

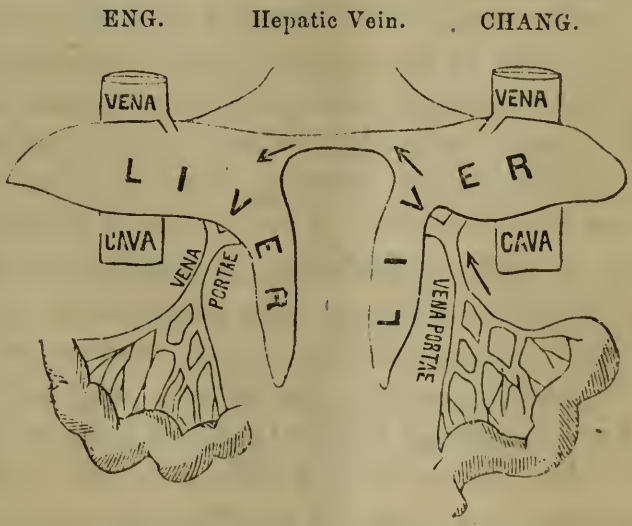
made in rather an exceptional manner. By reference to the parts it will be seen that the incision in either individual was located in such a way as to avoid the median line, since it was supposed from the peculiar position of the umbilicus that the remains of the hypogastric arteries would be found extending from the fundus of the bladder upward and onward along the entire length of the anterior wall of the abdomen. Besides, this incision would enable us, by continuing from below upward, to fairly open the abdomen and examine the cord, without violating the conditions by which the Commission was bound. The flap comprises the greater part of the abdominal wall, and can be best observed, from the position of the bodies on the table, in that of Eng.

You notice that the tissues are well supplied with fat: and this condition is very plainly in contrast with that of Chang. Eng's side of the band is well nourished; Chang's end of the band presents an entirely different aspect. Chang was an invalid, and the weaker half of this organism, with less strength in the abdominal walls, and in every way less tissue, than was possessed by Eng. You can mark that distinction very plainly in the two halves of the band, proving, if we had no other means of proof, that there could not be any very intimate communication of the vessels between the two.

The first point worthy of notice is that of an isolated mass of adipose tissue, evidently sub-peritoneal, which is in the position of the usual umbilicus, namely in the median line of the abdomen, about half-way up the anterior wall. This is strictly symmetrical, a similar point of about the same size being found in Chang.

Another fact equally well pronounced is that in Chang the bladder was found very much contracted and contained no urine; it was deep down in the cavity of the true pelvis. That of Eng, however, was distended with urine; hence there was a contrast in the appearance of the fold underneath the skin in the two individuals, in consequence of great difference in the actual size of the bladder.

My finger is now in the *umbilical pouch* of Chang. (C.) The motion is noticeable in the under portion of the band. On the side of Eng no such motion will be observed. I can very clearly see my finger passing between the two folds of the suspensory ligament. At this point it would perhaps be well to exhibit the drawings which have been made of the views which we have been enabled to obtain from this very limited incision. On looking up towards the band with the greatest possible stretch of tissue, we see the arrangement of the remains of the hypogastric arteries converging toward the bond of union. In this lower diagram we show you the livers joined by what is supposed to be the *tract of portal continuity.* You will observe the limits are somewhat symmetrical. Here is the liver of Chang, with a fore-shortened right lobe :



DIAGRAMMATIC REPRESENTATION OF THE LIVERS ; PORTRAYING THE RELATIONS OF THE VESSELS, &C.

The arrows show the directions in which the injection passed from Chang to Eng.

The remainder of the right lobe is deep within the abdomen, and of course it has not been seen. Here is the fundus of the gall-bladder, and there the suspensory ligament, carrying the remains of the umbilical vein. When the finger is passed from Chang to Eng, it is received between the

folds of the suspensory ligament of Eng. In Eng the parts are essentially the same, although you see more evidence of adipose tissue. Here is a little ligament aiding in the support of the liver, to whose convexity it is attached; it is not seen in Chang at all. You might term it an accessory suspensory ligament. When the finger is introduced there, it is observed to terminate blindly, showing we think, that this is no more than an adventitious pouch, due to the presence of that suspensory ligament.

We find some vessels of the portal system, even as far down as the mesentery, well filled with the blue colouring matter. We of course desired, as far as possible, to examine all the tissues here by these incisions; hence it was when the bodies were in this position, the skin was taken off from the wall in order to get a view of the linea alba.

[The bodies were here inspected by the audience, and afterwards turned so as to expose the posterior part of the band. Further remarks apply to this posterior aspect.]

Dr. Pancoast—while the bodies are being turned, I will take the opportunity of replying to one or two questions which have been asked me. First, in regard to the common sensibility of these individuals. According to the statements we received at Mount Airy there was a line of common sensibility corresponding to the median line of the band. Dr. Hollingsworth says that if a pin was stuck into the band at the median line, both of the twins would feel it distinctly; but that, even at a slight distance to either side, the point of the pin produced an effect only on the twin of that side.

Another question has been asked me as to whether either of them was ever put under the influence of an anæsthetic, I answer it by saying that so far as we know it never was attempted, but that when, on the final occasion, Chang was anæsthetized by death, Eng was for a time unaffected. The story as told at Mount Airy was that Eng waked up and asked his son, "How is your Uncle Chang?" The boy said, "Uncle Chang is cold. Uncle Chang is dead." Then

great excitement took place. Eng commenced crying out immediately, saying to his wife whom they called in, "My last hour is come," and finally sank away. He was in perfect health when they went to bed.

They had been sitting up in a large double chair made for their accommodation. Eng was smoking his pipe until he became sleepy, and finally said to Chang, "We must retire." Chang said that he could not lie down comfortably. I understand that when they went from Chang's house to Eng's house, where they died, it was against the direction Dr. Hollingsworth; but with their usual stubbornness, they persisted in riding the distance in an open buggy. To return to the narrative of the night of their death, after Chang had refused to lie down, they walked about the house for some time, and even went out to the porch and washed their hands and drank some water. It was about 1 o'clock when they went to bed. Then Chang died some time between that and morning; his death not producing any immediate impression on Eng. It was only when the latter woke up and inquired about the condition of his brother, that he was at all affected.

As to the question, "what caused Eng's death?" I am not able to tell. The post-mortem which has been made does not show the condition of his lungs. Probably the valves of his heart were in a disorganized condition, and probably also the shock upon that weakened organ caused death.

Dr. Allen—In my opinion, Chang died of a cerebral clot. From inquiry at his home, I was led to believe that the lung symptoms were not due to pneumonia; indeed were not severe enough to have been so caused. The suddenness of the death, the general atheroma of the arteries, and the fact that there had been previously an attack of paralysis, all indicated that the death was of cerebral origin. Eng probably died of fright, as the distended bladder seemed to point to a profound emotional disturbance of the nervous system, the mind remaining clear until stupor came on—a

stupor which was probably syncopal. One thing to be settled in the making of our examination was to get the bodies in the best possible position, so that we could judge of the true nature of the band.

You will observe the great contrast between the anterior appearance of the band and its posterior aspect. When we suspended them face to face we conceived we had them in the proper position for study. On the posterior side there was a fold underneath, the skin extending from a central goint in the abdomen of Chang, passing over, crossing the median line, and inserted into the ensiform cartilage of the opposite twin, Eng. It was one of the objects of the examination to determine what was the nature of the fold. I judge it to be the linea alba; but I leave the Fellows to decide that for themselves. I will also add that, because we had not the privilege of cutting the anterior portion of the band, we were obliged to cut down from the point of which I have spoken to get to the structure, and demonstrate these *cuis-de-sac* from behind.

Here (referring to the casts), from this point the incision is horizontal about midway, and joined laterally by two oblique lines which were directed one upward and the other downward and outward, making a modified letter H incision. Thus we got all the space we needed. When I raise the skin we see the scar of umbilicus in the superficial fasciæ; and on lifting the other flap we get a better general demonstration.

And now we come upon the point of interest, namely, the position of the band and its true nature. We have a diagram here. You notice on Chang's side that there is an arrangement of interlacing aponeurotic fibres, marked here; and there fibres starting in Chang, pass across the median line and are inserted into the ensiform cartilage of Eng. Turning the lower flap downward, the upper flap upward, and the two lateral tongues outward, the superficial fascia is exposed. This is abundantly supplied with adipose tissue on either side, but is free from fat

where it covered the band. Both the lower flap and the fascia are lost in the scar marking the position of the umbilicus. The same dissection exhibits the position of the lower pouch of Chang. Turning down the external oblique, the two recti, and the internal oblique muscles, the transversalis was exposed, the latter forming a very well-defined layer in Eng, with an interval between the ensiform cartilage and the inferior margin of the thorax. These were much less marked in Chang.

Turning forward this layer of fibres in Eng from without inward, the diaphragm is brought into view. Muscular fibres are conspicuous in this position. The peritoneum on either side is now fairly exposed. Incisions may now be made with a view of demonstrating the pouches of the band. The upper pouch of Chang is, you will observe, freely opened on its posterior aspect, and the vessels in the tract of portal continuity are seen to be well distended with the injecting fluid. A small artery is seen crossing beneath this tract of veins, and is probably a branch of the hepatic; but, whatever may be its origin, it evidently could have little effect in influencing the nutrition of parts beyond the band, and is probably retained within the band itself. The lower pouch of Chang reveals nothing which was not demonstrable from in front, and the same may be said of the single pouch of Eng; thus confirming the opinions of the construction of the band before the pouches had been opened from behind.

Dr. Abraham Jacobi of New York, being called upon, said: I am very much obliged to the gentleman who has mentioned my name. I do not believe, Mr. Chairman, that I have anything to add to the stock of knowledge in regard to the subject before us. If I were to answer the question as to how this monstrosity originated, especially whether they became connected after having been separate organisms, I should say that that idea has been given up by those whose opinions are entitled to weight. It is true that years ago such specimens were spoken of by Dalton

in Holland ; and a number of others have alluded to the idea that two such individuals might in embryonic life become united simply by adhesion, the result of their being located together in the embryo. In truth, it appears to me that at that period such a thing might be possible ; but, of course the union would be a superficial one, not involving the deep organs.

We know that the first epidermis is formed about the end of the fifth week of embryonic life, and that after a time it is thrown off, so that the embryo of about seven or eight weeks is more loosely covered with the real epidermis than in the early period. The epidermis is thrown off a number of times until about the fourth month of utero-gestation, when it is finally perfected and remains intact. Now it is suggested that at those times when the epidermis is thrown off the connection takes place between the two individuals, just as the connection takes place between the prepuce and glans, which we so often find adherent in the fœtus and in a number of new-born children.

There are evidences which we cannot forget, that such connections have taken place before the final epidermis is formed, and about the time one of the earlier coverings is being thrown off, at a period when the internal organs, frequently implicated in such monstrosities, are already formed. There are few double monstrosities so well developed as this one. I think the records of about four hundred monsters have now been collected in the books and journals ; but very few are of such a complete nature as this. Every one has heard of the Hungarian twins, who lived to the age of twenty-one years, in the last century. Another pair of female twins, that travelled in Germany about two years ago, were described at the time in the *Berliner Wochenschrift.* They were of a similar nature. There are two cases on record in which a division has been successfully attempted, but in those cases the connections were not so well developed as in the Siamese Twins. The connection was in the same neighborhood, but was only

superficial—of skin and subcutaneous tissue. One of the cases is recorded by Dr. Braun (*Virchow's Archiv.*) Fortunately, or unfortunately, I do not know which, they were his own children. They were of the female sex. He separated them immediately after birth. One lived three and a half days ; and when the case was described in 1866, the other was five years old. In that instance the connection—three and a half inches long—extended from the ensiform process to the umbilicus. The other case is described as early as 1689, by the old German author Kernoch.

As far as the origin of twin monsters is concerned, I am certainly of those who are not of the opinion that two individuals could get into such an intimate connection by growing together. Certainly the connection is an original one. I believe that the general opinion is now that one Graafian vesicle may have two ova, or one ovum have two nuclei ; and these finally may, like the two vitelli of an egg, be closed together, surrounded by the same material, forming a single complete ovum ; and thus it may be that the two are included in the same ovum. I think this will explain why the sex is always the same—why they are always both male or female. They are male in twenty or twenty-five per cent. of the cases.—*Philadelphia Medical Times.*

Addendum to a Lecture on the Treatment of Tapeworm. By T. SPENCER COBBOLD, M.D., F.R.S., Lecturer on Parasitic Diseases at the Middlesex Hospital Medical College.

In reply to numerous letters, the substance of which has been communicated to me, I beg to state that one main object of my lecture was to insist very strongly on the necessity of persistent and careful personal search by the medical attendant of the stools of his patient, until he is satisfied that the neck and entire head were found. To some practitioners, this seems an apparently trivial and easy thing to do. On this score, however, I have reason to know

that it is not easy, and that the duty is frequently, in many cases habitually, omitted ; and hence we have one important cause of failure to cure tapeworm. No portion of the fæces should be left uninvestigated. On many occasions I have remonstrated with patients and attendants, who from motives of delicacy, have, prior to my visit for the express purpose of ascertaining results, carefully removed all floating matters of a non-fæcal character. I have obtained proof that the head of the worm is liable to adhere to such light materials.

Of course, in conducting these researches, one is apt to encounter rather unpleasant experiences. Some of these I recounted to my class with the view of impressing my hearers with the necessity of performing this duty in a thorough manner. The examination should extend to every stool while the patient is kept under treatment. As I invariably employ disinfectants, the disagreeableness of the task is not so marked as many might suppose ; nevertheless I have some times been attacked with nausea, consequent upon several hours' search in a stooping posture.

By way of illustrating the proceedings necessary in some cases coming within my experience, I narrated in the lecture which appeared in these columns in an abbreviated form, the following case. A practitioner of repute having repeatedly attempted and failed to cure his daughter, solicited my advice, by letter. In the first instance, I prescribed male fern extract in the ordinary way, and recommended a search for the head after the exhibition of the tæniafuge. As, however, at varying intervals, the worm continued to reappear, I at length advised him to send the patient up to town, which he did. I again prescribed the oil of male-fern. The body of the worm came away, as usual. After removing from the stools some ten or eleven feet of the body, including many loose proglottides, I continued the search for about two hours, during which I obtained some fragments of the neck, which were so fine from the part near the head that the transverse lines of segmentation were

barely discernible. Ordering a small dose of castor-oil, with plenty of weak tea and warm milk, I promised to renew the search next day. I felt confident the head must have been dislodged from the upper bowel. When I called next day, the fresh evacuations had been retained in accordance with my instructions, and the investigation renewed. Greatly advantaged by the strong light coming through the large hotel window, it was not many minutes before I noticed in the fæces four minute dots of uniform size. As these mere specs were placed side by side in a symmetrical manner, I concluded that they were the suckers of the head of the tape worm. The conjecture proved to be correct. Much, if not fully half, of the head was gone, whilst the loose and partially disconnected suckers only remained attached to one another by finely connecting shreds of parenchyma. On carefully transferring them without injury to a small glass tube containing water, the help derived from a powerful pocket lens at once set every trace of doubt at rest. My previous day's examination having afforded proof that only one tapeworm existed, I had now no hesitation in giving the necessary assurances as to the completion of the cure.

I must not omit to state that I transferred the corked tube to my waistcoat pocket, and when, after walking a short distance, I again looked at the specimen, the four suckers had separated. The gentle agitation produced by walking had sufficed to break up the delicate connecting filaments.

This case explains one of my reasons for insisting upon the carefull and assiduous examinations of the stools. In making such investigations, the practitioner should employ a disinfectant (the solution of permanganate of potash is, I think, the best), diluting the stool copiously with water. He should obtain a powerful light, a strong magnifying lens, one or two glass tubes filled with water, three or four empty basins or other utensils, and a pair of delicate long forceps (ten inches). Armed with these few essentials, he will treat his case after a "proper method," and thus probably

reduce the relative number of failures in practice. Of course, it is assumed that he must have previously familiarized himself with the naked eye appearances presented by the heads of different tapeworms, sufficiently to enable him to recognize any portions of the head that have separated by disintegration.

I come now to the question of preliminary treatment, as to which more details appear to be desired.

I said appropriate preliminary treatment, because I consider that the commonly received rules as to "fasting," etc., should vary according to circumstances. It is true, that I did not state what preliminary advice had been given in the particular case referred to; consequently, the more unsparing of my critics immediately jumped to the conclusion that I desired to conceal something! If my memory serve me correctly, I not only called attention at the time of delivery of the lecture, to certain points in this matter, but I wrote off on the black board a prescription similar to the one I had employed in that case.

In the instance named, I particularly requested the patient not to starve himself, but to take plenty of readily digestible food the day before the emulsion was given. I especially advised this in his case, because the chief symptoms were marked lassitude and nausea, sometimes amounting to actual sickness. I judged that, if I allowed him to let down his strength, by the starvation method, he would, (in spite of retaining the horizontal posture, which I also enforced) throw up a great part of the male-fern emulsion. In short, it was a case in which I was anxious to deal as gently as possible with my patient, without losing the full benefit of the worm poison. In this view, further, I ordered a mild aloetic pill; not, be it observed, with the intention of producing catharsis, or even so much as simple aperient action, but merely with the purpose of softening the fæces, and thus clearing the colon and upper bowel. The result was satisfactory. On referring to a note I made of the case at the time, I find it stated that the entire worm came away,"

"without any violent action of the bowels." There had been been no motion as resulting from the alcetic pills, and no sickness from the male-fern mixture.

This, then, was a patient who, as before remarked, had repeatedly taken one-drachm-and-a-half doses of the ethereal extract without success, but by the observance of the preliminary rules, modified to suit what were deemed to be the particular exigencies of the case, his cure was effected, in the proper acceptation of that much abused term, by the employment of two half-drachm doses of the same drug. Further than this, the patient was put to much less inconvenience than he had suffered on former occasions, without successful results.

Finally, I may say that I have been not a little surprised and hurt at the tone assumed in some of the communications above referred to. I shall only add on this head, that the object of the lecture, and I believe its matter also, were purely scientific and unimpeachable. As to the form I do not pretend to be so good a judge.

For twenty-six years, I have been engaged in the study of the entozoa ; and, for the first fourteen years after taking my degree, I rejected all but purely scientific labor. During the last eight years in which I have been in practice, a very large amount of my time has been occupied in solving difficulties for, and giving gratuitous aid to, my medical brethren. The suggestion, that on this occasion I desired to withhold any useful information, is one which, I venture to think, my labours and my career contradict. I shall take no further notice of it.— *British Medical Journal.*

Extirpation of the Larynx with the Epiglottis.

On the last day of the year lately ended, Professor Billroth performed the operation of removing the larynx and epiglottis—a proceeding which had never before been attempted in the human subject, though Czerny had shown

in 1870, by careful experiments, that it was anatomically and physiologically practicable. The patient was a strong man about 40 years of age, the subject of cancerous growths in the larynx, which had repeatedly, after putting him in danger of death from suffocation, been removed by Dr. Stork with the aid of the laryngoscope. In the beginning of November the new growths extended so far into the interior of the larynx, that their removal from above was no longer possible. As, however, a part of the right vocal cord was present, Drs. Stork and Billroth hoped to preserve this, however imperfect; they therefore opened the larynx from the front, and, after removing the growths, applied solution of perchloride of iron to the inner surface. The result of this operation, which was well borne by the patient, appeared at first to be very promising; but in the middle of December new growths were detected by the laryngoscope, and at the end of the month symptoms of asphyxia appeared. On December 30 Dr. Billroth and Dr. Stork decided that the whole larynx was so full of malignant growths, that it would be useless to repeat the operation of dividing them and clearing them out; and there was no longer a possibility of preserving any part of the vocal cord Extirpation of the part would produce no additional physiological defect, and might lead to a radical cure, if the disease were confined to the part, and had not reached the glands. Professor Billroth therefore removed the entire larynx. The patient bore the operation very well; he breathed freely through the trachea, in which a tube was inserted; the fever was slight and of short duration; and on the 9th instant the wound was healing favorably. On the 24th the man was reported to be able to eat and drink, and to sit up for several hours daily.—*British Medical Journal.*

CANADA
Medical and Surgical Journal.

MONTREAL, MARCH 1874.

SMALL-POX AND MEASLES.

Are we to have a Small-pox Hospital? again we ask for information on this subject. The Corporation of our city appear to be disinclined to take up and discuss the propriety of having a special hospital for the accommodation of patients suffering from this disease. As it has become more than ever a necessity, we do hope that the citizens of Montreal will take up this matter and establish an hospital independent of the Corporation.

We have heard recently of several cases of actual measles which had been taken for small-pox, sent into the small-pox wards attached to the Montreal General Hospital. Some of these cases have gone through the disease measles, and subsequently the patient has taken small-pox, and we believe in one or two instances the second attack of disease has been followed by death.

"*Quos Deus vult perdere dementat prius*" is an old maxim, which does appear to apply in this matter. Our City Fathers, puffed up with obstinacy and pride, refuse the counsel and advice of those supposed to be familiarly acquainted with disease and epidemics, and what is the best method of arresting their spread. A new feature of disease arises, the doctors are puzzled; they declare a disease small-pox which is not small-pox—the unfortunate patient, if residing in a hotel or boarding-house, or an inmate of a jail, is ordered off by his physician to the only small-pox hospital in this city, which consists in the half of a small building in the back-yard of our English Hospital. If it were a Mayor, or an Alderman, or even a Councillor, it would not matter so much—in fact, we believe it might possibly lead to the

selection of a site and the erection of a suitable building thereon. We would almost regard a visitation of this nature as a blessing—a blessing on the community, though possibly a special punishment on the City Councillor for having neglected the interests of the people.

But to return to the subject of measles being mistaken in the early stages for small-pox. We have heard of some gentlemen declaiming against the stupidity of such a mistake; but we are forced to admit that it is a mistake of no infrequent occurrence. We have seen it made by some of the ablest men in the profession. A mistake of this nature is more liable to occur at a time like the present, when small-pox is epidemic, when men's minds are full of the probability of the disease small-pox breaking out in any quarter or any house in the city, than it would be at a period of comparative healthfulness, when the occurrence of small-pox would be looked upon as exceedingly problematical.

It is greatly to be deplored that these mistakes have been made, because they have resulted in the exposure of the patients to the contagion of a fearful disease, and in some instances that disease was contracted, and proved fatal, an event which the victim might possibly have escaped, under different circumstances.

There are few events which occur in life out of which a lesson cannot be learnt. These unfortunate errors teach us, as physicians, to be cool, reticent, silent; and avoid, as much as may be, jumping at a hasty conclusion. Small-pox, in the early stage of the disease, is not highly contagious; therefore, if the physician has any doubt, let him wait for at least twenty-four hours after the appearance of an eruption before he commits himself by declaring what the disease is. And yet another, and probably more important, lesson we learn as a community. We should instantly secure a building, to act as a small-pox hospital, wherein the means of having intermediate wards should exist, so that doubtful cases might be saved the possible chance of exposure to a disease which, if the patients do contract, will, in all likelihood, end fatally.

FÆCAL ACCUMULATION.

A case is reported in a recent number of the *British Medical Journal* of a gentleman, aged 60 years, who had suffered from gradually increasing distention of the abdomen, of two years standing, accompanied by emaciation, loss of appetite, flatus and constipation. On examination, his physician, Dr. Cole, of Bath, detected an immense tumour filling the whole of the abdomen, except a small portion of the left lumbar region, which was quite tympanitic. The tumour passed upwards under the ribs, and downwards into the pelvic cavity; it was smooth, hard and immovable; to the right of the umbilicus there was distinct resonance, and a little lower down was felt a coil of intestines between the tumour and abdominal wall, which was evidently filled with fæcal matter; firm pressure over the tumour left well-marked indentations, and the superficial veins of the abdomen were much distended. The rectum was filled with scybala.

The diagnosis was fæcal accumulation to an unusual extent. Large injections of warm water were administered daily for three weeks, aided by small doses of Belladonna and nux vomica, which resulted in the total disappearance of the tumour, and the expulsion of an almost incredible quantity of fæcal matter. The patient was restored to his usual health. The doctor reports that homœopathy had had a lengthened trial in this case.

This reminds us of a somewhat similar case which came under our observation a few years since. We were called to see a lady suffering from hysterical mania. She was a tall, thin woman, unmarried; exceedingly violent, so much so that she had to be restrained from hurting herself by two strong men who were relatives. We were informed by her mother that her bowels had not been open for over ten days, her appetite was ravenous, and she was in the usual condition of nervous excitement which is so often seen in similar cases. She had been under homœopathic treatment, but her physician obstinately refused to

permit the administration of purgatives, or even an injection. The abdomen was tense, and somewhat swollen, although there did not exist any distinct tumour. A large injection was administered, which resulted in the expulsion from the rectum of the largest mass of hardened fæces we had ever seen; it was nearly the size of a child's head.

This patient had taken up the delusion that she had become pregnant to a gentleman of her acquaintance, but who was not in the country at the time, nor had he been for over two years. The following day, at my visit, she accused me of having occasioned an abortion and of having taken away her child, and she threatened me with exposure, and of handing me up to the authorities on a charge of murder as she believed I had made away with her offspring. She was subsequently sent to an asylum, and after a residence of six months, or so, was quite restored; still, however, she is deluded with the belief that she had been pregnant, and that I had been the means of bringing away her child prematurely. I have been informed by her relatives that this fancy is disappearing very gradually, although they never allude to the circumstance unless the subject is broached by herself.

TESTIMONIAL TO DR. FENWICK.

The public say that "Doctors differ," and it is habitual with many to use this hackneyed expression as a term of opprobrium towards the Profession generally. With such persons the idea is, that members of the Medical profession not only differ from each other upon matters of opinion, but that they are of necessity jealous and ill-willed, and slow to do justice, one to another; that merit acknowledged by friends or clients to any physician is but grudgingly accorded to him by his confreres, and that on the contrary, medical detractation is the rule, which, if not openly avowed, at any rate is practically acted upon. We repeat this is an unfortunately too common popular notion, concerning the supposed absence of *esprit de corps* amongst practitioners

of medicine. We venture to believe that this is a totally mistaken conception as regards the profession generally, and more especially as regards the medical men of the city of Montreal; and we take pleasure in drawing attention to any circumstance which may tend to show the existence of cordiality and true fraternal feeling amongst the members of our common calling, It wlll be known to many of our readers that for many weeks past, the senior Editor of this Journal, Dr. Geo. E. Fenwick, has been suffering from such severe illness as has entirely incapacitated him for the performance of his customary duties and for practice. When it was understood that Dr. Fenwick had been advised to remove to a warmer climate, for a short time, for the purpose of renovating his health, it was at once suggested to his medical friends that he should not be allowed to go without their having in some way signified to him their sympathy with him in his illness, together with their appreciation of his many good qualities, both of heart and head, which render his temporary loss to them so much felt. To the testimonial then proposed, all were more than ready, they were eager to subscribe. On the fifth of February a gift of $1,000 was presented to Dr. Fenwick, accompanied by the following address, engrossed on parchment :

We, his assistants, congratulate the doctor most heartily, upon being the recipient of such a testimonial, coming as it has done, from the spontaneous good-will of the whole Medical Profession—the signatures including the representative men of all the colleges, and of all the practising physicians at large. Those who know Dr. Fenwick, will not be the least surprised at the enthusiasm with which his testimonial list was everywhere received. His reputation as a surgeon is recognized throughout the Dominion, not only so, but some of his leading operations have received most flattering attention from the American and British medical press. His success as a teacher can be testified to by his quondam students now successfully practising their art throughout the country. His popularity with his class

has always been unbounded. His practical and persevering efforts in furthering the efficiency of our charitable institutions, especially the Montreal General Hospital, have always been fully recognized by the governing bodies of these establishments, and it is well known that it has long become habitual to him to neglect his own private and personal interests whilst bestowing the most unremitting attention upon the the indigent sufferers in his surgical wards of the Hospital. As a man of very large experience and the soundest judgment,he has always been much sought in consultation, especially by the junior members of the profession. By them, especially, owing to the unvarying kindness, courtesy and consideration with which it is his custom to treat them, is he looked upon as their staunchest friend.

We have said enough to show why his absence, even though temporary, is thus felt and regretted by all.

We again congratulate Dr. Fenwick upon this outward demonstration of the good-will of the profession towards himself, and we likewise congratulate on the other hand the Profession of Montreal for having publicly shown that we *do* recognize and are ready to acknowledge true merit wherever found, no matter how we may "differ."

We are sure that Dr. Fenwick's numerous friends will join with us in looking forward with pleasure to the time when with renewed health and strength we hope to see him once more engaged amongst us.

We subjoin the address as presented, with Dr. Fenwick's reply :—

To George E. Fenwick, M.D.

Dear Dr. Fenwick,—We, the undersigned Medical practitioners of Montreal, appreciating your valuable services, as Editor of the Canada Medical and Surgical Journal, as well as your efforts in the advancement of the science and art of surgery, and sympathising with you in your present illness, desire to present you with this address, and the accompanying testimonial, as a token of our regard.

Trusting that you may soon be restored to the active duties of a profession you have so long and faithfully served.

We remain, dear doctor,

Your sincere friends,

G.W.Campbell,A.M.,M.D.	W. H. Hingston, M.D.	R. T. Godfrey, M.D.
J. L. Leprohon, M D.	John Reddy, M.D.	R. P. Howard, M.D.
R. L. MacDonnell, M.D.	W. E. Scott, M.D.	Robert Craik, M D.
J. M. Drake, M D.	F. W. Campbell, M.D.	W. P. Smith, M.D.
Samuel B. Schmidt, M.D.	D. C. McCallum, M.D.	Geo. Ross, A M., M.D.
Hector Peltier, M.D.	E. H. Trenholme, M.D.	W. E. Bessey, M.D.
Richard A. Kennedy, M.D.	John T. Finnie, M D.	Edwd. K. Patton, M.D.
John R. Smallwood, M.D.	W. B. Wheeler, M.D.	John Bell, M.D.
W. Macdonald, M.D.	George A. Baynes, M.D.	Thos. Simpson, M.D.
David A. B. Macbean, M.D.	W. Gardner, M.D.	J. J. Dugdale, M.D.
George W. Major, M.D.	Frederic Barnes, M.D.	William Fuller, M.D.
P. O'Leary, M.D.	Ang. C. Macdonell, M.D.	J. A. Rodger, M.D.
E. H. Trudel, M.D.	L. G. Turgeon, M.D.	T. G. Roddick, M.D.
Clar. J. H. Chipman, M.D.	W. A. Mondelet, M.D.	William Wright, M.D.
R. A. Alloway, M.D.	N. Loverin, M D.	T. J. Alloway. M.D.
E. Robillard, M.D.	A. Proudfoot, M.D.	J. Perigo, M.D.
N. Mercer, M.D.	P. N. Leclair, M.D.	G. P. Girdwood, M.D.
Dr. E. A. Duclos.	A. B. Larocque, M.D.	Arthur A. Browne, M.D.
W. E. D. Nelson, M.D.		

Montreal, Feb. 5, 1874.

REPLY.

To R. T. Godfrey, M.D., George W. Campbell, A.M., M.D., Wm. H. Hingston, M.D., Hector Peltier, M.D., and others:

Gentlemen,—I must beg of you to accept many and sincere thanks for this flattering expression of good will, towards me, and to assure you that this testimonial will be the more highly valued, as emanating from the profession as a body.

I feel that you are over-estimating any service I may have rendered to the cause of scientific truth, by editing the Canada Medical and Surgical Journal, nor can I admit that as a practical surgeon I have done anything to warrant this expression of regard from my confreres. It has been my aim through life to cultivate a feeling of friendliness with my professional brethren, and to avoid whatever might lead to misunderstanding or disunion.

I can only add, Gentlemen, that should a return to health and strength be granted to me, the balance of my life will be devoted to furthering the best interests of our profession.

I remain, Gentlemen,

Yours, very faithfully,

G. E. FENWICK.

ABSTRACT FOR THE MONTH OF FEBRUARY, 1874.

Barometer reduced to 32° Fahr., and to sea level; estimated height about 100 feet.

DAY.	THERMOMETER. 9 a. m.	3 p. m.	9 p. m.	Mean	Max	Min	Range		BAROMETER. 9 a. m.	3 p. m.	9 p. m.	Mean.	Rain and Sleet	Snow. Melted	Constant + 0.100 used in all Barometer Readings.
Sunday 1	-4 6	0 0	-9.5	-4 7	1 0	-7.5	8 5		30 724	.750	.814	30 796	.....	.....	Highest Barometer.
2	-15 4	-1 3	-2.4	-6 4	-1 3	-18.0	16 7		.801	.645	.510	.652	.....	.....	Minimum of the month -18 0.
3	6 3	15.2	15.0	12 2	15 2	-2.4	17 6		.148	.051	29 944	047	.....	0.32	Partly 2nd and 3rd.
4	18.5	21.8	11 0	17.1	21.8	13 7	8.1		30 039	.061	.209	.103	.....	.....	
5	-3 2	6 0	2 5	1 8	6 0	-7 5	13 5		.441	.381	415	.412	.....	.....	
6	-1 0	6 5	2 0	1 5	6 5	-4 0	10 5		.461	.390	.280	.377	.....	.....	
7	-2 8	7.5	4 8	3 2	7.5	-4.5	12 0	Mean of	.122	109	.159	.130	.....	.....	
Sunday 8	8 8	23 3	16.0	15 0	20 5	-1 5	22 0	10 days.	.378	.333	.235	.367	.....	.....	
9	11 6	20.4	16 5	16.2	20.8	5.0	15 8	7.74	147	29.996	.945	.029	.....	.....	
10	19.4	27.2	18 0	21 5	28.5	13 1	5.4		29 838	.750	.769	29 783	.....	Inapp.	
11	13.0	18 2	15 0	15 1	19 1	9.0	10 1		.763	.727	.845	.778	.....	.....	
12	4 8	14 0	10 2	9 7	14 0	3 5	10.5		30.149	.158	.048	30 118	.....	.....	
13	37 2	42.0	39.2	39 5	43.0	7 5	36 5		29.747	.577	.605	29 643	0.75	.....	Great'st range of Ther; rap thaw.
14	33 0	27 5	25 0	28.8	33.0	32 0	1 0		.814	30.094	195	30.034	.....	Inapp.	Lowest range of Ther. on 14th.
Sunday 15	26 5	36.5	34.0	32 3	37 0	19 5	17 5		30.175	.015	29 930	.040	.....	.....	Lowest Barometer on 16 h.
16	29.0	31.0	29 7	29.9	33.0	28 0	5 0		29 510	.425	.460	29.465	.....	0 37	
17	13 1	19.4	9 8	14 1	21 5	12 0	9 5	Mean of	847	.947	30.135	.976	.....	.....	
18	7 5	17 1	10.0	11.5	18 5	4 0	14.5	10 days.	30 359	30 355	.405	30.373	.....	.....	
19	4 5	28 2	31 0	21 2	31.0	-0.5	31 5	23.67	.169	29 945	29 915	.043	.....	0.10	
20	31.8	40.8	28 2	34.6	41.2	30 0	11.2		29 752	.877	30.095	29 901	0.26	.....	Maximum of the month, 41 2.
21	15 2	21.0	24 0	20 1	24 0	14.0	10 0		30.165	30.130	30 145	39 147	.....	0.23	Rapid thaw.
Sunday 22	18.0	26 5	24.2	22.9	26 8	14 5	12.3		.350	315	.310	.325	.....	.....	
23	22.5	33 0	38.0	31.2	38.0	19.0	19.0		29 675	.480	.620	29 592	.....	0.25	
24	6.2	14.8	10 5	10.5	15.2	5.5	9.7		30 440	.465	.514	30.475	.....	.....	Greatest range of Barometer.
25	15 5	23.5	19 0	19 3	....	....	....		30.428	.....	.....	.....	.....	...	
26	19 0	21 0	20 0	20.0	....	....	....		.....	.....	.....	.....	.....	.....	
27	23.0	24 0	21.5	22 8	....	....	....		.....	.....	.....	.....	.....		
28	15 0	26 0	23.0	21.3	....	....	....	Mean of	.....	.....	.....	.....	.....	.....	
								5 days.							
SUMS....	....	.....		....	....	....	....	21 0	.....	.....	.....	....	1.01	1 27	
MEANS	13 40	21 1	16.23	17.47	26.0	8 74	....		.....	.....	.....	30 012	.....	.....	

Mean temperature of the month, 17.47; mean of the maxima and minima temperatures, 17.37; greatest heat on the 20th, 41.2; greatest cold on the 2nd, 18 below zero—giving a range of temperature of fifty-nine degrees. Greatest range of the thermometer on the 13th, 36.5; lowest range on the 14th, 1.0. Eight nights below zero—(note minus sign –)

Mean height of the barometer corrected for temperature 32°, and reduced to sea level (constant applied + 0.100) 30.012; highest reading of barometer on the 1st, 30.814; lowest reading on the 16th, 29.425—giving a range of 1.389 inches.

Rain and snow fell on nine days; amount of precipitation when the snow was reduced to its equivalent of water, 2.28 inches. Reckoning 9 inches of snow to be equivalent to 1 inch of rain-water, the depth of the snow fall may be estimated at 1 feet 2 inches.

CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Valedictory Address to the Graduates in Medicine and Surgery, on behalf of the Medical Faculty, McGill University. Delivered at the Annual Convocation, held in the William Molson Hall of the University, on Monday, 30th March, 1874. By GEORGE ROSS, A.M., M.D., Professor of Clinical Medicine.

GENTLEMEN, GRADUATES IN MEDICINE,—Your pupilage is over, your examination has shown you to possess that knowledge which is the password for admission into the noble fraternity of medicine, your initiation is now complete, and it is my pleasing duty to be the first to congratulate you upon this auspicious termination of your labours. Each one of you now holds that coveted prize, to obtain which has cost you many hours of weary work, and many days of anxious toil through the space of four long years. You are not at all likely to overrate the importance of this present moment to yourselves, nor the value of that which has now become the individual possession of each of you. As, therefore, that which is to-day entrusted to you is greatly valued by yourselves and respected by the public, so do you, by your acceptance of the gift, at the same time take upon yourselves a very grave responsibility. Remember, gentlemen, that each one of us (for in this I speak with you as fellow-graduates,) each

one of us necessarily holds in his own safe-keeping, the honor, credit and reputation of his Alma Mater. What makes the pride and the crown of glory of a College? What but the fame, honor, and respect, which has been obtained by any of her sons? Whilst then you strive for excellence to place you in the front rank in the estimation of men, for that competence and social position which is commanded by undoubted worth, remember also that in attaining to this desirable point, you are not alone satisfying a truly laudable ambition, but at the same time you are affording gratification and real pleasure to all connected with this University, and you are adding fresh laurels to those already won, by many eminent men who have preceded you from these walls. As thus the College as a body is honored when you are praised, so in a still greater degree will your success be the source of pride and satisfaction to your own professors. To them it has been given to direct your studies, to watch your progress, to correct your errors, to praise your diligence, to sustain your interest and energy, and at the same time to set before you an example of true professional fellowship according to no mean standard. And be sure, gentlemen, that it must always be with feelings of deepest interest that they will watch the result of their endeavours to mould you into that which no community can too highly prize, viz.: high-toned, well educated professional men.

True ambition, that is a love of excellence for its own sake, is amongst the noblest motives which induce men to exert every talent and to strain every nerve, but besides this desire for high scientific or professional standing, there is also that commendable wish for material, social or worldly success whlch finds a place in the minds of all educated men in every path of life. Qualities which will make a man successful in one calling will not necessarily raise him to eminence in another. To make a man eminent in our profession requires a combination of qualities of very varied nature and some of a very high order. What these

qualities are we can best appreciate by studying the lives of those whose names are great in medicine, and by observing closely the characters and qualities of any of the greatest living men.

Of course, to take and be able to hold any position, it is especially necessary that you should possess a sub-structure or foundation of absolute knowledge—knowledge, the power which raises a man above his fellows. Up to this time you have been entirely occupied in the acquisition of this professional but mainly theoretical knowledge, which is to form the basis of all subsequent attainments. From this time, however, besides there remaining the necessity for forming continual additions to your original or capital stock of knowledge, it becomes necessary for you to learn how *practically* to bring this to bear upon the actual affairs of daily life. For to "get on in the world," as the popular phrase is, not only must your abilities be sufficient, but at the same time you must convince the public that you yourself have confidence in these abilities, and then you will soon find a similar confidence shared in by them. This difficulty always meets upon the threshold a man beginning practice. He possesses something of which many are in search—medical knowledge, surgical skill—and yet, how to give the proof? Now, though what is called professional etiquette (which is in reality but the outcome or expression of a true and proper professional pride and dignity) forbids unhesitatingly every kind of self-laudation or business-like demand for patronage, yet it by no means implies that a man should go about, as Robert Hall said, "with an air of perpetual apology for the unpardonable presumption of being in the world." It is not an uncommon mistake to suppose that a man fails to meet with the appreciation his intrinsic worth deserves owing to some optical defect upon the part of a purblind public. Of this stereotyped talk, Washington Irving justly says: "It is too often a cant by which indolent and irresolute men seek to lay their want of success at the door of the public. Modest merit, however,

is apt to be inactive or negligent merit. Well matured and well disciplined talent is always sure of a market, provided it exerts itself, but it must not cower at home and expect to be sought for."

Added to self-reliance, there is no quality more calculated to aid and further your advancement than what is called practical talent—by which I would mean what commonly goes by the name of tact—or the adaptation of ways, means and conduct, to the varying circumstances in which you may be placed. There is no force, no momentum, in mere intellectual ability, intellectual ability standing, as Burke says: "in all the nakedness and solitude of metaphysical abstraction." But, combine with this that ready tact which teaches how to do the right thing in the right place, and at the right time—and then you are in a position to bring *practically* into play your professional or scientific ability.

Bear always in mind the solemn words of the academic oath just taken—caute, caste, probe—let them be no vain form, but let them haunt you all through life, and you will find them help you in many a temptation to which you cannot but be exposed. Think always of the great and sacred trusts confided to your care—the lives of men and women, the honor of families, the happiness of the young.

Permit me also to say a word concerning that manner and bearing which it should be your aim to cultivate. In olden times the physician was expected to be a person of dignified, solemn, and unapproachable appearance; his assumed taciturnity being but a cloak for his ignorance, and his excessive gravity a profoundly acted sham. Later on, many were celebrated whose manners were brusque, rough and repulsive to a degree, but who yet sustained their reputations in spite of this. Indeed, doubtless, in many cases these very peculiarities of manner, repelling, as it were, all idea of seeking favour, were the means of still further extending a reputation founded upon unquestionable merit. But in this the nineteenth century,

this kind of meretricious worth, so easily assumed, and which at one time found so many imitators—this will not do. You will often be told that doctors are unsympathetic and hard-hearted. This I need hardly say to *you* is a vulgar error. It is a matter which is often made the subject of a jest by better educated persons, but that the idea should be accepted as a reality by any one with a knowledge of the world I do not believe. It is true that from the very nature of our calling, we are constantly brought into contact with all the protean forms of human suffering and misery, and at the same time, since we are then always called upon to act, it is absolutely necessary to maintain such calmness and composure as may inspire confidence in our patients. But in spite of this, there are a thousand other ways in which the true sympathy of the medical attendant may be evinced, and I believe that there is no calling in which real sympathy and human interest calls forth such a responsive gratitude as in our own. Be sure, then, to cultivate a demeanour towards all your patients—rich and poor alike—which shall not be incongruous with that truly high and noble calling which you have this day embraced. Try to imitate the Great Physician who "went about doing good," and to observe in all your relations to your fellow men those great rules of morality laid down by the same Divine authority. Be patient, kind, thoughtful and considerate; place always your patient's welfare before your own interest, or comfort, or convenience. Our very self-interest, if no higher motive, should prompt to similar consideration for the feelings of others. Nothing conduces more to worldly success, there is no quality the importance of which is more real, yet which is so underrated at this day by the young, as *courtesy*, which includes all those delicate attentions, those nameless tendernesses of thought and manner which make the true gentleman. "Prepare yourselves for the world" said Lord Chesterfield, "as the athlete used to do for their exercises; oil your mind and your manners, to give them the necessary suppleness and flexibility, strength alone will not do."

Form at once regular and methodical habits. "Custom," said Montaigne, "is a violent and treacherous schoolmistress. She, by little and little, sly and unperceived, slips in the foot of her authority, but, having by this gentle and humble beginning, with the aid of time, fixed and established it, she then unmasks a firm and tyrannical countenance, against which we have no more the courage nor the power so much as to lift up our eyes." How often do we see in every calling of life, men of brilliant attainments and profound learning proving themselves disappointing failures just through the lack of the early formation of habits of system and method. It seems to me as though this were peculiarly the case with those of the medical profession. In the scientific pursuits connected with this profession there is so much that is calculated to excite an absorbing interest that many become engrossed in some hobby which leads them gradually to lose sight entirely of their own material interests, and they wake from their lethargy generally only in time to find their capabilities for usefulness crippled, and themselves obliged by stern necessity to continue to bear the heat and burden of their daily toil when they might have been enjoying that dignified leisure to which well spent years would have rendered them entitled. Do not make this mistake. Set about your work with a determination to do it well. The best antidote to becoming visionary, absent-minded, and neglectful (and even the semblance of neglect you will find, is always reckoned a most heinous offence) is to be from the very commencement unflinchingly systematic and methodical.

Towards your professional brethren, above all things, be charitable. Think no evil—far less express it—and be sure to let your every act towards them be exactly such as you would desire to have reciprocated. Be above any mean or petty action towards a confrere, but rather be ready always to greet with a warm and open right hand of fellowship every honest member of our great fraternity.

You have also to perform duties of the very highest mo-

ment to the state. At no period of the world's history has such attention been given to the promotion of the public health, or, in other words, to sanitary reform. Indeed, in England, so great is the social and political importance now attached to sanitary matters that the London *Lancet* has not hesitated to assert that mismanagement of this department has largely had to do with the defeat so recently sustained by the late Liberal government of that country, and there is evidence to show that, in the elections following, hundreds were led to vote for their political opponents simply because they believed that they held the soundest views on matters of sanitary legislation. Here, in Canada, public sanitation is but in its infancy, and it is incumbent upon everyone who enters the ranks of medicine, as you this day do, to lend his best endeavors towards educating the public sentiment in this direction. What we want is an entire set of laws to arrange a scheme for the establishment of authorized sanitary bodies throughout the Dominion. This is a noble object and the one which should especially engage your attention, for in this better educated century we believe and know that it is a thousand times better to *prevent* disease than to have to *cure* it.

Gentlemen, we part from you to-day, confident that you will meet with that success which a continuance of such assiduity and devotion to your work is almost certain to command. We wish you all God-speed. You know that the worldly prize is not to all, but be content if, after a life well spent in doing your best to relieve your suffering fellow-creatures you can, like Thackeray's good old Col. Newcome, with a quiet conscience answer "adsum" when your name is called.

GENTLEMEN, FARE YOU WELL.

A Case of Acute Desquamative Nephritis, occurring at the sixth month of Gestation—with almost total suppression of Urine—Induction of Premature Labor, entire fatty degeneration of Placenta.—Recovery. By JOHN REDDY, M.D., L.R.C.S.I., &c., Physician to the Montreal General Hospital, &c.

[READ BEFORE THE MEDICO-CHIRURGICAL SOCIETY.]

MR. PRESIDENT AND GENTLEMEN,—Of the case I am now about to read to you, not being one of every day occurrence, I have at the risk of being considered tiresome, ventured to give you the details, considering that its practical importance and happy termination will prove interesting to you.

On the 18th July, 1871, Mrs. I., born in Scotland, aged 38 years; middle stature; ruddy complexion, and in apparent good health, called to engage me to attend her during her confinement, which she expected about the 18th of October following. There was nothing in her appearance that would lead one to suppose that she enjoyed other than the best of health.

While giving me her history, she desired to tell me of what appeared to her rather a singular occurrence. For upwards of three weeks, towards night, she was troubled with frontal headache; sometimes very severe, accompanied by a feeling of debility and partial loss of vision, and occasionally with confusion of intellect. On further questioning her, I ascertained that she noticed the backs of her hands and her insteps slightly swollen toward the close of each day. She also suffered some pain across her loins, and had slight nausea, which never amounted to vomiting. The latter symptom she attributed to her pregnancy. Her appetite, also, of late had been very capricious, and her sleep disturbed by frightful dreams, causing much restlessness. While actively engaged in her daily calling (which involved considerable responsibility) she desired often of late to rest, every duty appearing irksome, and quite a drag to her. Through the day she had frequent desire to urinate; but only passed

her usual quantity ; her bowels have been much constipated of late. For over three weeks she has not felt the motion of the child.

She has been thirteen times pregnant (including the present) seven coming to maturity, and five abortions occurring before the fourteenth week—severe hemorrhage attending the second and seventh—that is taking them in the order of gestation. She attributed her present condition to anxiety of mind, occasioned by domestic calamity, and altered circumstances, which, I have no doubt, played a most important part, tending to keep her spirits constantly depressed, she, nevertheless, exhibited much fortitude, and determination in striving to overcome the difficulties of her position. Having examined her carefully, I could not detect any motion of the fœtus, nor heart sounds.

I requested her to send me a few ounces of her urine in the morning for examination. Next day, 19th, she again called, saying she was induced to pay me an early visit to inform me of what she considered a curious circumstance, that every time she had gone to the closet she imagined that she had passed a normal quantity of urine, but that since I had drawn her attention to the subject, she had used a chamber, and was only able to collect in the 24 hours, what she now handed me, 3 fluid drachms. It was of a smoky, dark, muddy colour, not transparent, contained over 40 per cent of albumen, and under the microscope, I found a quantity of blood corpuscles, and renal debris, and one or two dark casts. The quantity was insufficient to ascertain the specific gravity.

I prescribed a mixture of acetate of potash 10 grains, and 3 iv. infusion of digitalis every four hours ; 5 grains of compound colocynth pill and 2 grs. of extract of hyoscyamus as an aperient, every eight hours if necessary. Also to have a lamp bath for 20 minutes : directing also that should she at any time feel further indisposed I should be immediately sent for.

20th—Received a message that she felt much better. The pill and bath had given her much relief, but she could only send me 3½ drachms of urine, all that had been passed in the 24 hours. It was the same as that first sent, in character.

21st—Not feeling quite so well, she sent for me to-day. Pulse 79, temperature normal, slept heavily during the night, headache increased and vision dull, appetite nil, œdema of hands, feet and legs marked, bowels have been feebly acted upon, but the kidneys are hardly acting, as in the last 24 hours, she had only passed 4½ drachms of urine.

6 o'clock—A slight improvement in the general symptoms since last night.

22nd—Pulse 90, temperature 99, tongue whitish, passed a very restless night, and feels quite unwell. Face now looks puffy for the first time, œdema considerably on the increase, extending to the inguinal regions, legs and thighs have a tense feel, complains of much general uneasiness, but is remarkable for her good spirits. Could only obtain 4 drachms of urine in the past 24 hours. Ordered ½ ounce of the potash bitartrate, and a tablespoonful of gin every four hours.

7 P.M.—No aggravation of any of the symptoms ; bowels freely opened by the purge. Ordered a lamp bath.

24th—Pulse 88 ; tongue cleaner, seems less oppressed ; but that is evidently owing to her being obliged to assume more of a sitting posture, as the œdema has increased so much that loose crepitating rales are heard over the roots of the lungs—only passed 4 drachms of urine since yesterday, character unchanged. I should have mentioned before this, that her diet consisted so far, of beef tea, chicken broth, milk, and a tablespoonful of gin three times in the day.

5 P.M.—I now had the benefit of Dr. G. W. Campbell's advice, who saw her with me, and who recommended that I should use 20 grain doses of compound powder of jalap every six hours if necessary, and continue my mixture and

gin, &c. For the past twenty-four hours I had been coming to the conclusion, that considering the gravity of the case, the only alternative would be to induce artificial labor, and thus make an effort (though seemingly a doubtful one) to save my patients life. In this view I was fully supported by my friend Dr. Campbell, who kindly offered to assist me whenever it was decided upon, and before separating, we came to the conclusion to give present treatment twenty-four hours further trial, and if no change for the better occurred, then to resort to it.

26th—Pulse 90; tongue whitish; had severe headache in the early part of the night, and much dullness of vision; complains of stiffness and tightness of her loins and back; the œdema has so increased, that across the lumbar region it is intense, and at the inguinal fold the flexure is obliterated. The purge caused twelve watery stools, and but 2 drachms of urine was collected in the twenty-four hours.

27th—Pulse 95, not full, no change having occurred, and a little less than 4 drachms of urine being voided since yesterday, it was plainly evident that nothing more could be expected from the present mode of treatment. Having fully explained to my patient the necessity and character of the operation which I purposed performing (although I may say she had been prepared for it some days previously, as I had it explained to her that it might be necessary in case other efforts failed,) she at once assented.

At 4.30 P.M., assisted by Dr. Campbell, I injected six ounces of tepid water between the membranes and wall of uterus (Cohen's plan,) which neither caused her pain nor inconvenience.

6 30 P.M.—Visited her and found that slight labor pains had commenced, os uteri unchanged in size, but softer to the touch.

8 30 P.M.—Made a visit, pains are increasing, and the os dilated to about the size of a shilling.

10 P.M.—Labor progressing well, os dilated larger than a florin, a slight show has also appeared, but she feels no inconvenience of any kind, unless from the occasional pain.

11 P.M.—Was sent for as hæmorrhage had suddenly taken place, on my arrival I found that it had been rather profuse, accompanied with a good many clots, the os was now dilated to the size of a dollar ; my first concern was immediately to apply the tampon, and give her ergot and brandy. Dr. Campbell who had also been sent for at the same time as myself, arrived shortly afterwards, and kindly remained with me till 2.15 A.M.

At 2:35 A.M.—Reaction being pretty well re-established, the labor became more vigorous, and during a strong and prolonged pain the tampon was forcibly ejected. On making examination the os was fully dilated, and the child's right foot within reach. I now extracted the fœtus, but not without considerable difficulty, traction having to be exercised most cautiously, as partial decomposition had rendered it easy of separation. Nevertheless, I got it all down in about ten minutes. My difficulties, however, did not end here, for by no ordinary effort could I bring away the placenta. Finally, finding it necessary to introduce my hand, and on endeavoring to seize and bring it down, it separated into five or six distinct lobules, each of considerable size, of a pale straw color, totally changed from its normal condition, the entire having the peculiar feel and consistence of a fatty body. The cord was twelve inches long, and of the same color as the placenta. Both weighed 65½ ounces.

The fœtus, a male, was small for the sixth month. I considered that it had been dead for three or four weeks.

While removing the placenta she became very weak, and part of the time the pulse became hardly perceptible, yet there was no hemorrhage. I deemed it necessary to maintain a steady pressure with the hand over the uterus (it being inclined to relax constantly) till 5.30 a.m., then the bandage was applied. From the delivery till then I had given her a few doses of ergot and a liberal supply of beef tea and brandy. At this period I was enabled to leave her in comparative safety.

28th—10 a.m.—Pulse 90, weak, temperature 99, has a pale and exhausted appearance, her spirits are good, she is doing well, discharge very moderate. To have beef essence and brandy occasionally. Visited her at 2 o'clock and 9 o'clock p.m. Reaction rapidly progressing; pulse 88, fuller and firmer. Had passed during the day over a wine glassful of urine, which by mistake had been thrown out.

29th.—Pulse, 86; more volume. Tongue clean, and a very marked change for the better. Œdema of legs, and in dorsal region perceptibly abating; uterine discharge slightly offensive. Passed since yesterday 17½ ounces of urine, of a slightly muddy colour: specific gravity 1020; containing about 8 per cent. of albumen; microscopic character—merely a small quantity of renal debris, epithelial scales, few in number, from bladder and pelvis of kidney, and a few crystals of lithic acid. Directed the use of Condy's fluid, 3j to a pint of tepid water, to be occasionally injected into the vaginal passage, and ordered Iron and Quinine.

30th.—Pulse 80, good volume; marked improvement since yesterday; is hungry and relishes her food; her strength and spirits are good. The œdema has nearly disappeared from her extremities and body, and her respiration is quite free. Passed since yesterday 33 ounces of urine—specific gravity, 1018—of a pale straw colour, in which I could not find a trace of albumen; and under the microscope appeared normal.

31st.—Pulse 80, good volume; has gained considerable strength since yesterday. The œdema is all but away; the lochia have partly subsided; fetor entirely absent; continue nourishment.

August 2nd.—Pulse 78; strength wonderfully re-established; appetite excellent; bowels have acted regularly since delivery.

August 7th.—Improvement marked. Can sit up in bed, read, knit, &c. Nothing particular to record.

Being absent from the city I did not again see her till my return on the 25th August, when I found her comparatively well. She informed me that everything went on favorably till the 16th when she was seized with an attack of crural phlebitis in the left leg, attended with great pain, swelling and stiffness. She had a considerable amount of fever with much prostration. Dr. Howard kindly attended her, and prescribed an anodyne liniment, cotton wrapping and bandage to leg with suitable position, which was attended by a speedy cure, as I find her nearly well to-day.

28th—Up, moving about her bed room.

Sept. 6th—Able to go down stairs.

13th—No further necessity exists for seeing my patient, she feels well able to go about and attend to all her household duties.

On examining under the microscope a small portion of the placenta, it was literally loaded with oil globules, and even the cord adjoining partook of the same character. I could discover but few blood corpuscles—even to the touch it had a smooth greasy feel. Another peculiarity, on cutting into one of the separated lobes, no blood appeared, the arteries contained dark clotted blood. A very striking and remarkable fact suggests itself on reading over this case, considering the small quantity of urine passed (three ounces, from the 19th to the 26th July,) that uræmic convulsions had not occurred, although many prominent symptoms were present—headache, nausea, dimness of vision, &c., yet her intellectual powers seemed but little impaired.

Stearoid or fatty degeneration of the placenta was observed by Hoboken and Haller during the last century. Since their day this condition has been noticed by continental pathologists, as Stein, Wilde, Charante and Brehm.

The importance of this condition of the placenta as affecting the life of the fœtus, and its frequency, was passed over by accoucheurs, until the occurrence of a similar con-

dition as affecting other organs, came to be studied under the microscope. To Dr. Barnes of London, is due the credit of first drawing the special attention of English accoucheurs to this condition of disease of the placenta in two very remarkable papers which he published in the 34th and 36th volumes of the Transactions of the Medico Chirurgical Society of London.

Fatty degeneration of the placenta has been found to exist in connection with the death of the fœtus, both in the early and latter months of utero gestation. Dr. Barnes appears to regard this as a primary morbid condition of the placental tissue, unconnected with, or unpreceded, by any other morbid change.

Dr. Bennet, prior to Barnes' observations, examined several specimens of partial and general degeneration of the placenta. In most of these he found at certain points a co-existence of induration with exudation of lymph. Hence he concluded that the degeneration was due to an altered state of inflammatory products, that existed prior to the degeneration, a greater or less inflammatory condition of the placental substance. Virchow and Handfield Jones have also noticed the same thing, and Dr. Priestly has of late examined the subject, and believes that the so-called fatty degeneration is due to a pre-existing low form of inflammation of the placenta. Simpson, as early as 1836, described a condition of the placenta, which he termed chronic inflammatory induration, and which he states frequently exhibited a somewhat lardaceous or stearoid structure. He also believes that there are local fatty deposits frequently met with in the placenta, the result of the degeneration of blood clots, occurring from placental congestion or hemorrhage.

Again, Simpson states that when the child dies from disease in its own body, and is retained for some time in utero, the placental structure shows the appearance of fatty degeneration.

MONTREAL, 13*th March*, 1874.

HOSPITAL REPORTS.

MONTREAL GENERAL HOSPITAL.

Case of most extensive Burn. Amputation of arm by Bloodless Method.—Death.—Autopsy.

M. M., æt 55 years, was admitted under Dr. Howard on the 3rd January last. When received he was in a condition of profound insensibility, and on examination a portion of the left arm extending from the wrist on the ulnar side, and occupying nearly that half the forearm, and as far as the upper third of the upper arm, was the seat of a burn of the 4th and 5th degree. Over the position of the left frontal eminence also, was a burn, perfectly circular in shape, and about three inches in diameter : the central portion of this was extremely hard and glued down to the skull beneath. In the arm the integument over the olecranon, and inner condyle was also hardened in the same way, and firmly adherent to the bone.

The man had been a soldier, and besides being addicted to intemperance, was an epileptic. At the time of the accident he was employed in the depot of the Grand Trunk Railroad as an ordinary laborer. It was known that he had been drinking rather freely for the few days previous to the accident, but on this particular occasion none of the other workmen noticed that he was under the influence of liquor. He was found about ten o'clock in the morning lying on the floor of one of the empty cars with his left forehead and arm pressed firmly against the red-hot stove, and being rapidly charred. He was profoundly insensible, and made no motion to protect himself.

On admission he was still insensible ; pupils slightly contracted ; countenance livid ; pulse 140, and very weak ; respirations hurried ; lips and tongue dry and parched. The injuries were exactly as described above.

Towards the evening of that day he became sensible and the pulse fell rapidly to about 110; the lividity also disappeared. He now called loudly for cold water, and would drink enormous quantities if permitted. He was ordered milk, beef tea, and linseed tea *ad libitum*, and to the burns, poultices of linseed meal. He suffered little or no pain in the injured parts for many hours after admission, but complained of sleeplessness, for which chloral was given in twenty-grain doses, to be repeated after four hours if necessary.

On the fifth day the sloughs on both the head and arm began to separate. On the tenth day, while removing the poultice from the arm an immense slough came with it, and at the same time the radius and ulna shot backwards, causing a complete disorganization of the elbow joint. The muscular and ligamentous connections had evidently all given way, and dislocation, of the most unfortunate kind, produced. A slough of the size of a Mexican dollar was removed at the same time from the head, exposing the bare skull; and at the most central point was a small burnt and blackened portion of the bone of the size of a York shilling.

Nothing remained to be done for the arm but remove it. Amputation was accordingly proceeded with on the following day in the presence of the staff, Dr. Howard operating. It was decided to operate by the bloodless method, but owing to the height to which the burn extended in the upper arm, the application of the elastic band was found a matter of the greatest difficulty. The flap was taken from the inner side of the arm, and folded upwards over the sawn end of the bone, there being no outer flap. It made an odd-looking stump, and reminded one very much of the manner in which one-armed men pin the empty-sleeve over the shoulder. He stood the chloroform and ether very well, and after the operation his pulse was 96 and full. As is generally the case after the use of the elastic ligature, the oozing was considerable after its removal, and in this instance it seemed to be especially troublesome, no doubt

from the near contact of such an immense granulating surface.

The patient did well, and the stump, although suppurating rather freely, looked well, until the 13th February, or the sixth day after the amputation, when the edges of the flaps were noticed to assume a peculiar diphtheritic appearance, and the suppuration became very much less. The pulse ran up to 130, and the temperature increased. The man also complained of a shivering feeling, and the face became anxious. He was ordered two grains of quinine every four hours, and a table spoonful of brandy in water every hour. The carbolic dressings are to be applied hot to the stump.

February 14th.—Notwithstanding that he got forty grains of chloral, in two doses, during the night, at an interval of four hours, he rested very badly. His wife who was with him all night, states that he was quite delirious at times, and that she had great difficulty in restraining him in bed; pulse 140, and slightly irregular; surface of body livid; on examining the chest, which was done with difficulty, there was evidence of pneumonic consolidation of the left lower lobe. The stump remained in somewhat the same condition as was noticed yesterday, there being much less pus secreted, and the edges of the flaps continued unhealthy-looking as before. The treatment was now directed entirely towards the lung complication.

February 15th.—In spite of all efforts, and although champagne was administered *ad libitum* as a stimulant, and counter irritation applied unsparingly to the chest the man rapidly sank and died this forenoon.

Autopsy.—Brain—On removing the skull-cap the dura mater was found slightly congested, but there was no localized extravasation or other evidence of injury to that portion immediately underlying the burn. The brain throughout was perfectly healthy. The external table of the skull corresponding in size to the slough above mentioned, was found to be marked by a distinct line of demarcation, and on the inner table was a smaller portion, about the size of a ten

cent piece, marked also by a distinct line, showing undoubted destruction of the bone to that extent, so that in all probability, had the man lived exfoliation would have ensued.

The lower lobe of the left lung was consolidated. The remaining portion of that and the right lung were free from disease.

The other organs were comparatively healthy.

The stump was opened up, but nothing remarkable found.

Correspondence.

"ALLGEMEINES KRANKENHAUS."

VIENNA, March 1st, 1874.

I have been sadly unmindful of late, of my promise of an occasional contribution to your valuable journal, and I am even now so busy that I am tempted to put off writing to a more convenient season. I left Berlin on the 29th of December, and stopped at Dresden for a few days, to see the galleries there, which pleased me very much, and then continuing my journey I arrived here on New Year's day. With the aid of a Yankee friend, I soon obtained a room in Reiter Gasse, close to the Krankenhaus. The Krankenhaus is arranged in nine courts, occupying a whole district in the city, and accommodating more than two thousand patients. We were not long in getting to work, and our daily programme is as follows:

At about half-past eight we go to Hebra, who visits his wards at this hour, and at nine, we go to his lecture-room. Undoubtedly, he is *the* lecturer of the Vienna School, and he combines the humourous and instructive in a delightful way. I generally go every other morning to Bamberger, who lectures at the same hour, on General Medicine. He is a splendid diagnostician, but is, I think, inferior to those Berlin giants, Traube and Frerichs. At ten, we have ano-

ther hour on the skin, from Neumann, who has the run of Hebra's wards, and an out-patient department of his own. He enters more particularly into individual cases than Hebra, and gives us more differential diagnosis. At eleven, we go to Wiederhoffer, the professor in the childrens' department, and have there in the first half hour a series of selected cases, and in the second a lecture. There are not many in his class, so that one has a good chance to examine the children oneself. At twelve, I attend a course on ear diseases with Polizter,not that I am going to make a specialty of them, but I thought it well worth while, when an opportunity occurred, to make their acquaintance. Polizter is good, and shows us a great many cases, and makes us pass the Eustachian Catheter daily. At one, Braun, the Professor of Obstetrics, lectures, but more of his Clinique shortly. Between two and four we dine, and take our constitutional, and at four we have a class on the Laryngoscope. This is a six week's course, and I am just beginning an other and take kindly to the Larynx. At five we have one of our very best classes viz : obstetric operations, with Bandl, Braun's first assistant, in which, after as much theory as is needful, work begins on the cadaver. They have a fresh body about every second day, and any number of babies. Each man has fifteen operations to perform, besides going through the diagnosis of the various positions. One of these courses—they last nearly eight weeks—is necessary before you are allowed to operate in the wards. The obstetric department is in three divisions, two for students of Professors Carl Braun and Spath, and the third for midwives. At Carl Braun's class, which I attend, they have an average of four thousand five hundred births in a year, *i.e.*, ten or twelve per day. Students have access to the lying-in-ward at any time, and a certain number are on duty every day, but usually nurses take charge of the ordinary cases. Every third day women come to be examined, to see whether their time is at hand. They are arranged on a series of beds, and the assistant takes a

student to each case, and examines him on it. No matter how many students are present, all can have a "finger in the pie," and one feels sorry for the poor women, but Bandl says they don't mind. Operative cases occurring in the daytime are, if possible, delayed till the lecture hour, and then brought into the theatre. I have seen three forceps cases, and one case of turning, in this way, and some half dozen in the wards. I begin next week to go on duty about every fifth or sixth day and hope to get three or four forceps cases before leaving. Altogether, midwifery and skin diseases are the specialties in Vienna, while in general medicine and pathology it is infinitely below Berlin. After having seen Virchow, it is absolutely painful to attend post mortems here, they are performed in so slovenly a manner, and so little use is made of the material. Professor Rokitansky lectures at twelve, but usually to less than a dozen men. Most of the six or eight weeks courses, for which the school is so famous, are £2, but the ordinary University ones only £1, so that it quickly mounts up, especially if one takes second courses. I do not attend any surgical classes, having as you see my hands full, but we go to Billroth occasionally, and I shall take a course of operations from his assistant before I leave.

Americans swarm here, there are fifty or sixty of them at least, and Great Britain is represented by five or six Edinburgh men and a couple of Londoners. The city itself is very beautiful, having a splendid wide street, like the Thames embankment, surrounding the inner town, and occupying the position of the old wall and moat. I expect to leave about the end of April, and shall touch at Paris on my way home, to see the city.

The 19th of last month was a red letter day in the life of Professor Carl Rokitansky. His seventieth birthday was made the occasion of another such demonstration as took place here a few years ago in honor of Prof. Skoda. The city, university and students all combined to celebrate the event in a manner worthy of themselves and of the dis-

tinguished man who has so long shed lustre on their school. Not only, however, here, but throughout the medical world of Europe, and, more especially, of Germany, great interest was shown in it, as the long string of delegates from the various universities and societies attested. Ample time was afforded to the students to complete their arrangements by the occurrence of three holidays immediately before the occasion — Ash Wednesday and two saints' days; (on saints' days we get no lectures, much to the disgust of the foreign students.) The proceedings began in the fest-salon of the Academy of Science at 11 a.m., when the deputations were received and the addresses read. By the appointed hour not an available seat was free in the spacious hall, and it was indeed a stirring sight to see such a goodly assemblage gathered together to do honor to the "pioneer of modern pathology.', At the conclusion of the opening oration by the Dean of the medical faculty, a beautiful bust, hidden by curtains, was unveiled with great effect, amid the cheers of the students. Then followed a jubilee song by the members of the University Musical Society, sung in a manner worthy of professionals; after which the work of the morning began—the receiving of the deputations. These, to the number of thirty-four, coming from all quarters of Europe, presented their congratulatory addresses, and, owing to the good management, and the brevity of many, the whole proceeding only occupied two hours, but was necessarily somewhat tedious. In a speech of half an hour's duration, Professor Rokitansky returned thanks, and with another glee the proceedings terminated. Of more general interest, was the grand torch-light procession of the students, which took place in the evening. The weather had been most unpropitious, and towards evening the snow, which had been falling, changed to rain, but, nothing daunted, the procession formed and marched round the Ring—the fine wide street surrounding the inner town—to the Cour-Salon, where a University dinner was going on. About fifteen hundred students, all provided with torches, and

many wearing the fantastic uniforms of their societies, composed the procession. In spite of the weather, thousands of people turned out to see the sight, and every window of the tall houses on each side of the street possessed its occupants. Inside the City Park, in front of the Cour-Salon, they halted, and Professor Rokitansky surrounded by his family, appeared in one of the lower galleries Here there was an address, followed by a reply, and several songs. As viewed from a little distance, through the mist and smoke, the scene was a strange one ; the hundreds of moving forms, so weird and unearthly, amid the gleams of the torches, looked as if their object was anything but peaceful. Re-forming, they proceeded round the Ring to a vacant lot, where a company of the Fire Brigade relieved them of their torches, after which they adjourned to a large building where a "feed" had been provided, and the evening was spent in true German fashion.

I add a short sketch of Rokitansky's career, which may interest some of your readers. Born in 1804, at Koniggratz, Bohemia, he entered the Vienna school in his twentieth year, and very soon turned his attention to pathological anatomy, as three years later we find him one of the assistants. Taking his degree in the following year, he still continued at his post, and on Wagner's becoming Prosector, was raised to the first assistantship. At Wagner's death, in 1832, he was elected provisional Prosector, but not till six years later definitely installed in the post. He began lecturing in 1834, and for the next six years was busily engaged in collecting material for his great work, the first part of which appeared in 1841, and raised him at once to the foremost place in the then youthful science of pathology. Sixteen years more passed in the constant investigation of disease, during which time the general part of his book appeared, as well as an enlarged revised second edition, which, from the amount of new matter in it, created even a greater sensation than on its first appearance. It is due to his efforts that the magnificent pathological institute,

the largest and most completely furnished in the world, was founded and opened in 1862. He has been called a slow worker, but, if slow, he was very sure, making few false steps in his onward progress, and is rightly regarded as the founder of modern pathology. Since 1858 honors have poured in from all sides. A member of the Upper House, one of the Court advisers, President of the Academy of Sciences, and decorated with the most coveted orders of the Empire, it may well be said that he "bears his blushing honors thick upon him," and, let us hope, the "killing frost" of Death, whose work has been his life study, may yet long spare him to his country, and to the school whose brightest ornament he is. W. O.

Periscopic Department.

On a Case of Mitral Stenosis, with Cardiac Hypertrophy and Dilatation, manifested by a Presystolic Murmur. By Arthur Ernest Sansom, M.D., M.R.C.P., Physician to the Royal Hospital for Diseases of the Chest, and the North-Eastern Hospital for Children; Vice-President of the Medical Society of London.

James B., aged 9, was brought as an out-door patient under my care at the North Eastern Hospital for Children, on October 5, 1872. He manifested pain at the heart region, distressed breathing, and great pallor of surface. He had been suffering from rheumatic fever for a fortnight, and had had an attack ten months previously. The heart's rhythm was greatly disturbed, and a blowing murmur was heard at the apex, which was at first thought to be systolic. He was admitted as an in-patient on the 9th; then, although the rhythm was still much disturbed, it was obvious that the cardiac murmur preceded the systole, and was heard most intensely just externally to the situation of the

normal apex. The boy suffered much pain in the epigastrium and in the right shoulder. Præcordial dulness gradually extended, and on 30th October a soft to-and-fro friction-sound was heard about the apex. On November 2 distension of the pericardium attained its maximum, dulness reaching above to the upper border of the third rib, right to a line outside the right border of the sternum, left about an inch externally to the nipple. From this time absorption rapidly took place, and on November 6, dulness occurred only over the same area as on admission; the presytolic was the only murmur heard. There was no marked thrill felt over the heart region, but a "cantering" rhythm was manifest. It was noted that "the blowing bruit at the apex commences immediately after the aortic diastolic sound. and is terminated by the sharp thud of the impulse; it is lost over the right cavities and the base; here the sounds are normal." The boy improved considerably, and, after a stay in the Convalescent Hospital, returned to his home. Early in February. 1873, after a fall downstairs, he became very ill again, and was brought under my care.

On February 19 it was noted that the signs of cardiac hypertrophy had greatly increased; the thorax was bulged over the heart region, the apex-beat was below the seventh rib, and the murmur was of the same general character as before, but the second sound at the base was very markedly accentuated. He had several attacks of dyspnœa and pain accompanied with only a very slight œdema and no albuminuria. There was no cyanosis, but extreme pallor of the surface. On opthalmoscopic examination the retinal arteries were seen to be very fine, whilst the veins were disproportionately large. He died on November 9, 1873.

The treatment adopted was generally the administration of bicarbonate of potass with quinine. Digitalis in four-minim doses of the tincture many times afforded him great relief, but the most marked benefit was obtained in the

latter stages by the application to the chest of poultices made of the steeped digitalis leaves.

Post-mortem examination showed a large congested liver, the other viscera of the abdomen being moderately congested. Lungs were fairly crepitant and healthy. The pericardium was adherent by firm bands to all the adjacent parietal structures and to the heart-muscle. The heart could only be removed from the body by cutting away lung-tissue and diaphragm. It was greatly hypertrophied, weighing twelve ounces, and occupying a bulk equivalent to thirteen fluid ounces. The whole left side was lined by a leathery, much thickened endocardium ; the left auricle was of funnel shape, its capacity nearly one fluid ounce, its length from its upper part to its termination in the orifice of the mitral valve nearly $2\frac{1}{2}$ in., its width $1\frac{3}{8}$ in., the thickness of its muscular wall varying from $\frac{1}{8}$ in., to $\frac{1}{4}$ in. The curtains of the mitral valve were united to form a funnel-shaped bag, the orifice of which admitted the end of the forefinger. Diameter of the orifice $\frac{3}{4}$ in ; its border was slightly roughened. The left ventricle was large and dilated, its capacity being more than $1\frac{1}{2}$ oz., its greatest length $2\frac{7}{8}$ in., width $1\frac{3}{16}$ in. ; greatest thickness of wall $\frac{7}{8}$ in., least $\frac{1}{2}$ in, The right cavities presented no morbid appearances.

This case is interesting not only as adding another to the list of recorded examples illustrating the diagnostic value of the presystolic murmur, but as showing its relation to complications—especially of extreme cardiac hypertrophy —not commonly associated with it. From the first time that facility was afforded for sufficiently careful examination, it was held as established that the murmur heard occupied the period of the auricular contraction, and that it indicated narrowing of the mitral orifice. The great hypertrophy of the muscular wall of the left auricle, as seen at the autopsy, rendered the causation of the murmur heard during life easily intelligible upon the principles laid down by Gairdner and others. The proof of the auricular origin

of the presystolic murmur appears to me to be as complete as possible—the sound is mitral by localisation ; it occupies the period of the rhythm during which it is established by physiologists that the auricle contracts ; it ceases at the time of the ventricular contraction, The unvarying testimony of post-mortem records is that there is a strong muscular auricle, with an obstruction by narrowing of the valve-orifice to an outlet into the ventricle—physical conditions which are well known to give rise to cardiac murmurs in other situations. I am not disposed to think that narrowing of the mitral outlet is always accompanied by a presystolic bruit, but I consider that the evidence is very strong to the conclusion that wherever there is a presystolic bruit there is contraction of the mitral orifice, I think its recognition is of great practical importance, for it enables us to class by themselves a series of cases differing in clinical history and prognosis from the cases which manifest mitral regurgitation.

It seems to me highly probable that examples of presystolic bruit are much more common than are supposed, and that the sound is confounded with a systolic murmur. It will be a great gain if practitioners will take increased care to localise, in point of time, the cardiac murmurs which they observe. As regards the method of doing this, I may venture to give the following hints ;—Having satisfied yourself that there is a bruit localised at the apex, observe whether the murmur is sharply terminated by the impulse or continued through it. This cannot always be determined by the ear alone; the period of the impulse must be timed. For this purpose I quite agree with Dr. Fagge, that the simultaneous observation of the radial pulse is most fallacious. Placing the finger on the carotid pulse is much better ; but I consider that the best plan, wherever it is practicable, is to apply the tip of the finger lightly over the region of the heart-apex as nearly as the position of the stethoscope will admit. It is then easy to determine whether the bruit heard precedes the systole or is

synchronous with it—in other words, whether it is presystolic or systolic.

There is still some difference of opinion as to the proper nomenclature of these murmurs. Some observers even now prefer the term "diastolic," to which there appears to me the strongest possible objection. Others, with Dr. Gairdner, would apply the term "auricular systolic." The propriety of the term will, I consider, necessarily vary accordingly as it is employed for clinical demonstration or to express pathological causation. For the latter purpose, Dr. Gairdner's term, "auricular systolic," is perfectly appropriate; for clinical demonstration, however, it would be better to adopt one which should fix the period of the murmur without hypothesis. I do not think that the use of the words "systolic" and "diastolic" for the purpose of timing murmurs is without reproach; both expressions are vague. There is a valid objection to the term "presystolic," for the heart systole implies both auricular and ventricular contraction; the bruit is coincident with the auricular and presystolic only with reference to the ventricular systole. The objection to the term "diastolic" is far greater; the diastole is a gradual process marked by no sign, but custom has firmly joined it to the click of the aortic valves. If a bruit accompanying the closure of these valves be called diastolic, it would be a very grave misapplication of terms to apply it to a bruit occurring not at this period of time, but afterwards, and indicating a lesion with which it has nothing in common. While, therefore, I adopt the term "presystolic" because it now has an intelligible connotation, I cannot help thinking that it would be much better if heart-murmurs were expressed in plain English and indicated by the obvious and precise sounds of the normal heart. Thus, a systole should be expressed as a *first-sound murmur*, a diastolic as a *second-sound murmur*, a presystolic as a *before-first-sound murmur*.

Upon the question whether or no these cases of funnel-mitral are due to rheumatic endocarditis, I do not think

that this example gives a decided answer, though the probabilities are in favour of the theory of a rheumatic origin. The cases collected by Dr. Fagge tended strongly to favour the view that the narrowing of the mitral orifice is not due to rheumatism ; (a) and looking at the smooth and even disposition of the curtains of the mitral valve into the funnel-form, it seems much more easy to assume that these are cases of congenital malformation unless there is strong evidence to the contrary. The observations of Lancereaux are, however strongly in favour of the rheumatic origin of mitral stenosis· He describes rheumatic endocarditis as consisting of three stages—in the first there is multiplication of connective-tissue corpuscles, with swelling, thickening, and injection of the affected portion ; the second stage consists in fibrous transformation of the neoplasm ; the third is characterised by progressive involution of the transformed structure in a manner analogous to the formation of cicatricial tissue. Such is the pathological history of sclerous endocarditis as distinguished from the ulcerative and villous forms, and it is the sclerous form that is specially caused by rheumatism. (*b*) In the foregoing case, although the occurrence of a congenital defect is certainly not impossible, the probabilities, especially as there was a history of a previous attack of rheumatic fever, appear to be in favour of the whole valvular alteration having been due to rheumatism. The general thickening of the endocardium lining the left cavities, uniform as it was, was most probably due to the increased intra-cardiac tension. The fatal complication of the case was the extreme pericardial adhesion ; to this cause was no doubt due in greatest measure the remarkable hypertrophy. The valvular change was the lesser of the evils.—*Medical Times and Gazette.*

A Case of Sudden Death quickly following the Injection of Perchloride of Iron into a Nævus. By W. B. KESTEVEN, F. R. C. S.

Fatalities are often more instructive than successes in surgery. They point to sources of danger to be avoided, and compel us to cast about for conditions of safety. For these reasons I have thought that it might be advisable to add the following to the list of casualties that have been recorded in connexion with the treatment of nævi by the injection of perchloride of iron.

On April 3rd, 1873 I injected with perchloride of iron a nævus on the head of an infant aged nine months. The nævus was of a circular form, was situated on the top of the head, over the upper border and middle line of the frontal bone, and was about three-quarters of an inch in diameter. No ill effects followed, and the operation was apparently successful. In about three months afterwards, however, a reappearance of the growth began to show itself, steadily increasing in extent, so that six months after the first injection it was determined to repeat the operation. By this time the fontanelle was closed and the child in average health, save that it was excitable, and subject to child-crowing. On Oct. 4th five minims of perchloride were taken up in a graduated syringe with a screw piston, and, my son assisting me, three minims were injected ; the rest escaped from the wound. The child cried a good deal during the few seconds occupied by the operation. In a short interval of time, it may have been a minute, it again began to cry, then suddenly turned pale and was slightly convulsed, at the same time that it began a series of eight or nine shrill laryngismal cries, attended with distinct struggles to recover its breath, which suddenly ceased in death. The whole time that elapsed from the first insertion of the needle to the child's death could not have exceeded five minutes.

In THE LANCET for August 17th, 1867, Mr. Thomas Smith, of St. Bartholomew's, has collected several fatal

instances following shortly upon the injection of nævi with perchloride of iron. In these cases the nævi were situated upon some part of the face, or near the veins in the neck. As the result of these fatal consequences, Mr. Smith concludes :—"Sufficient is known of the effect of the possible admixture of perchloride of iron with the general circulation, from injecting nævi on the face, to justify us in rejecting it as a remedy for nævi in these parts, unless, by pressure or by the employment of some instrument, the circulation in the growth is controlled, at least for some time."

In the above-mentioned case, the child, as already stated had been the subject of laryngismus, in a paroxysm of which, doubtless, it died. I had no opportunities of ascertaining by post-mortem examination whether coagulation of the blood in any veins had occurred, but since no accident followed the former injection, and as the nævus was far away from the veins of the face and neck, I am of opinion that death in this instance was not the result of embolism, but took place from spasm of the glottis produced by mental emotion. A fatal result would, I believe, have followed, had any other mode of operation been employed. —*The Lancet.*

An Address on Pyœmia in Private Practice. Delivered before the Clinical Society of London. By PRESCOTT HEWETT, F.R.C.S., President of the Society; Senior Surgeon to St. George's Hospital, etc.

GENTLEMEN,—In taking the chair this evening, I cannot refrain from thanking you for the honour which you have been pleased again to confer on me. I confess that I had my misgivings as to my fitness when I took the chair last year; but, whatever may have been my shortcomings, thanks to the Council, and more especially to the unwearied zeal of our secretaries and of our treasurer, I am happy in

being able to congratulate you upon the still increasing prosperity of the Clinical Society.

With these few but heartfelt words, I pass on to the more immediate business of this evening; and in doing so, I shall follow out the course, which I ventured to enter upon last year, and again give you some gleanings from private practice, the clinical result of which may be made valuable, and all the more so when contrasted with those of Hospital practice; and the subject to which I shall direct your attention is that of pyæmia, a subject than which none is more important, and the consideration of which, in some of its bearings, has of late years been largely occupying the attention of our profession. The few observations which I have now to offer you on this subject will be confined to cases occurring in private practice.

A young lady, aged 15, stoutish, but of good general health, came under my care for a congenital cystic tumour at the root of the neck. When an infant, an attempt had been made to remove this tumour, but a bit of it was left, as it was closely adherent to the large vessels. For several years after this operation nothing was noticed in relation to this tumour, but for two or three years previous to my seeing my patient, it had, without any apparent cause, taken to growing; and when I was consulted it occupied the whole of the lower part of the left side of the neck, and projected beyond the clavicle. At a consultation with the late Mr. Keate, who had performed the operation, it was determined that single-thread setons should now be used, and two of these were introduced into the tumour. In a few days intense inflammation set in, and suppuration followed; a quantity of matter was let out, the swelling subsided, and for some days everything appeared to be going on satisfactorily; and then came rigors and sweating, but without any increase in the local trouble. After a while it became evident that the patient was suffering from pyæmia, the mischief being in the left lung, and for several days the condition was most perilous; but one afternoon, after a

violent fit of coughing, a large quantity of offensive matter was suddenly brought up, after which the more dangerous symptoms gradually subsided, and the patient ultimately, recovered, and remained perfectly well, without any further trouble as to the tumour. In this case the patient's room—large, lofty and well ventilated—was in a well-found house in one of the best streets in the town.

A hale old gentleman, close upon 80, who had long enjoyed most excellent health, had a small warty growth in the skin, just over the insertion of the tendo Achillis. This growth I removed, as it constantly became chafed, and troubled him much in walking. I made him lay up for a few days, and then as the trifling wound was almost healed, he was allowed to go about a little, but, being of active habits, he one day took a longer walk than usual. This was followed by some slight inflammation of the wound, which however soon subsided, and he was on the eve of returning to his usual avocations, when rigors and sweatings made their appearance; then came an immense deep-seated abscess in the thigh, under the constant draining of which he ultimately sank.

I was called in consultaion to a gentleman who was suffering from pyæmia, and who, a short time before, had had a small wart removed from the scrotum. He died. Details of this case are given further on, as I had had to attend this gentleman between three and four years previosly, for a former attack of pyæmia.

Shortly after I begun practice, I removed a small sebaceous tumour from the scalp of a lady. Everything went on well for the first few days; then came erysipelas of the scalp, which was subsequently followed by pyæmia and death. As far as one could judge, the conditions under which this trivial operation was performed were all favorable ones. The patient, middle aged, and not stout, had some months previously, undergone, without a bad symptom, a similar operation for the removal of three other sebaceous tumours. The bed-room, in a house in one of the most open

and healthiest squares, was large and well ventilated: the weather was temperate, and the patient had remained in the house after the operation.

I operated upon a middle-aged lady, of good general health, for scirrhus of the breast, and for the first eight days everything looked promising; then came a rigor, followed by erysipelas around the wound, which, for a few days went on slowly spreading; subsequently pyæmia made its appearance, and under this she gradually sank. The house in which the operation was performed was in one of the best streets in Pimlico. The bedroom was of good size, and well ventilated.

About a month afterwards, I operated upon another lady for scirrhus of the breast. Middle-aged and slim, she was of a sallow complexion, but in good general health. In this case, too, everything promised well for the first few days; then came a severe rigor and sickness; erysipelas soon made its appearance around the wound, from whence it gradually spread. Matters went on thus for a few days, then there was pyæmia, and in a few days more the patient was dead. In this case the operation was performed a few miles out of town. The bedroom, very large and well ventilated, was in a large, well-built house with all the modern appliances, and situated on a heath, on elevated ground, overlooking a wide expanse of country. As far as one could judge, no better nor healthier situation could have been selected for an operation.

A lady, aged about 45, had a large sero-cystic tumour of the breast, some of the cysts of which occasionally suppurated, and were, under such circumstances, sometimes opened, and sometimes allowed to burst. Matters went on thus, as she would not hear of an operation, for between eight and nine years, the general health being as good as ever between the attacks. At this period a small cyst suppurated, and was allowed to burst, shortly after which erysipelas made its appearance around the edges of the little sore; then in a few days came rigors and sweating, with

pain and great swelling of one of the knee-joints, and in a few days more this lady sank. At the time of the bursting of the cyst the patient was in her usual good health: her bedroom, fair sized and well ventilated, was in a house in a part of a town generally considered to be one of the healthiest.

A young gentleman met with an accident to his shoulder, which led to inflammation of the joint, and for this he ultimately consulted me. After awhile the inflammation subsided, leaving the joint somewhat stiff. Then persuaded by some friends, he went to a bone-setter, who pronounced that the bone was out and proceeded to put it back, as he said. The manipulations gave him great pain, and were followed by a recurrence of inflammation in the joint, for which he once more fell under my care. Suppuration of the joint ensued, and abscesses burst in various directions. Thus matters went on for a time, then came rigors, profuse sweatings, and a sodden appearance of the skin, with an anxious countenance, a running pulse, and great loss of flesh—the joint itself and the parts around it being meanwhile without any increase of mischief. Although tall and slim, this gentleman, up to the time of going to the bone-setter, had been in good health, and his family was healthy. He remained in this perilous condition for some time, looking as if secondary abscesses might occur at any moment. All this time he lived out of town, in a good country house, well cared for, and with plenty of fresh air. With the winter coming on I sent him to the South of France, where after a residence of some months the more threatening symptoms gradually subsided, and when he returned to this country there was a decided improvement in his general health; but he was still far from well, and he remained more or less ailing for between two or three years, at the end of which period he was in fair health, with a permanently stiff joint, the abscesses about the shoulder having gradually dried up.

A middle-aged lady, in fair health, was supposed to be suffering from a sharp attack of sciatica on the right side

and for this she was ultimately sent to Wiesbaden ; but after a time, finding that there was no improvement as to the pain, she returned home and for some months went on creeping about, under the supposition all the while that she was suffering from sciatica. It was at this period that I was consulted on account of a swelling which had been gradually making its appearance in the corresponding groin. The swelling proved to be an abscess which extended into the iliac fossa ; and on further investigation, the sacro-iliac joint was found to be the source of all the trouble. The abscess was allowed to burst, after which everything went on satisfactorily for some three weeks, when pyæmia made its appearance, and was followed by death in a week. This lady lived in a house on a hill, a few miles out of town. The house was in every respect well found, and her bed room was airy and well ventilated.

I was telegraphed for a few miles out of town to a gentleman about 30 years of age, who was thought to be suffering from acute inflammation of both ankle-joints, and inflammation of the left lung. The case, on closer examination, proved to be one of pyæmia, in connection with suppuration about the tonsils. In a few days the inflammation around the ankle-joints ended in the formation of matter, which was let out ; after which this patient gradually recovered, and in a few weeks was restored to his usual good health. This case has already been alluded to as that of a gentleman who died of pyæmia after a trifling operation for the removal of a small wart from the scrotum. Between the two attacks of pyæmia in this case there was an interval of between three and four years. The first attack occurred in the country, and the second in town.

Recently, too, I have seen another gentleman, who in connection with suppuration about the tonsils, had symptoms of poisoned blood— rigors, profuse sweats, sodden skin—under which he sank.

A young gentleman, aged 18, had a severe attack of typhoid fever, from which, however, he was making a good

recovery, when, about a fortnight after all symptoms had disappeared, he again became feverish, and soon afterwards without having met with any accident, he complained of pain along the shin-bone ; swellings, which were very painful, formed along the surface of this bone ; suppuration followed ; the abscesses were opened, and went on discharging for some time, after which they gradually dried up without further mischief.

A lady's maid, aged about 30, had a severe attack of typhoid fever in the country. She recovered, and being considered convalescent, came up to town, shortly after which smart feverish symptoms made their appearance, and were soon followed by swelling, affecting principally the knee, and extending some distance down the front and inner side of the leg. For awhile the symptoms were very severe, and ended in extensive suppuration about the upper part of the tibia ; the matter was let out and the patient gradually recovered : but the free use of the limb was not regained for a couple of years, and during this period several bits of bone came away.

A delicate, middle-aged lady had typhoid fever, which in due course passed away, leaving her weak and ailing, with now and then a recurrence of slight feverishness. After a time this feverishness became more marked, and then she began to complain of very severe, deep-seated pains in various parts—first, at the upper and inner side of the tibia ; then, at subsequent periods, over the lower part of the shoulder-blade, along the middle part of the spine, over the ribs, as well as over the crest of the haunch-bone. The pain in each of these parts was followed by swellings, and ultimately by abscesses, some of which were very large and deep-seated. The abscesses were allowed to burst, and then, after the subsidence of the swelling, a probe was in each instance easily passed down to the periosteum, and in some parts the bone was found bare. The drain was great ; hectic set in, and after intense suffering, with occasional but limited mischief about the lungs, this lady sank.

A delicate-looking girl, aged 18, ran a needle into the fleshy part of the leg, where it broke off, but could be felt projecting slightly beyond the skin. It was pulled out, and she went about her work as usual; but in a few days the tiny wound festered, and in a few days more she was admitted into St. George's Hospital with symptoms of pyæmia, rigors, profuse sweatings, and swellings in various parts, Subsequently came evident signs of mischief, about the lungs, and she sank within a month after the trifling injury. The needle, according to the patient's account, was quite clean, and she stated that she had never been laid up before, and had always had good health.

A young gentleman, aged 18, and apparently in good health, while bathing ran a small splinter of wood into the fleshy part of the great toe. The splinter was immediately plucked out, and he went about as usual for several days as if nothing had happened. Then the spot became painful, and a tiny abscess formed; it was attended to, but in a few days it was followed by urgent symptoms—severe rigors, and most profuse sweatings; abscesses formed in the leg—one, a very large one, was deep-seated and in the calf; as they appeared they were dealt with, but for weeks the sweatings were so profuse that it was necessary to change the bed-linen several times in the twenty-four hours. Ultimately, however, the patient recovered, and he left his bed a mere skeleton, between four and five months after the onset of the attack. His bedroom was fair-sized, well ventilated, with a large window looking over a wide expanse of country, the house, a recently built one, being in the outskirts of a town.

A gentleman, middle-aged, was tripped up in the street, and fell violently upon his elbow, the lower bones of which were thereby dislocated backwards and partially thrust through the skin. The dislocation was easily reduced, and for a few days everything went on satisfactorily. Then came suppuration of the joint, followed in about a fortnight by several rigors and profuse sweating, with swellings in

various parts, and he died a month after the injury. His bed-room was a fair-sized one, well ventilated, and in a house in a good street, on the north side of, and not far from, Hyde-park.

A little boy, aged 6, met with a slight accident to his foot, which was followed by acute periostitis of the bones of the tarsus; this ended in suppuration; some of the joints were destroyed; and at different periods, several abscesses formed in various parts—over the greater trochanter, over the crest of the ilium, and in the sacro-lumbar region, as well as over the bones of the skull in divers places. The suffering was intense, with low muttering delirium and rapid wasting, and to such an extent, that the child was soon reduced to a mere skeleton. Thus matters went on for some weeks, after which the abscesses dried up; anchylosis of the bones of the tarsus took place, and when last seen, about a couple of years after the attack, he was a strong, active lad. All this occurred seven miles out of town, in a good house in a healthy part of the country.

I was summoned a long way into the country to a young lady laboring under symptoms of a typhoid character, the origin of which was obscure. It appeared, however, that she had recently had measles, which had been followed by a slight discharge from the left ear. The recovery from the measles had been good, and she was going about, when rigors and sweating occurred, and were followed by a fever, a dry, brown tongue, and great prostration; and such were the more obvious symptoms when I first saw this young lady. On further inquiry, it was now found, that the discharge from the ear had stopped; the intellect was quite clear; there was no pain in the head, no swelling in the neighborhood of the ear, but there was pain upon pressure immediately below the mastoid process, and this tenderness existed also some way down the side of the neck, in the course of the internal jugular vein. From this it was inferred that inflammation had spread from the ear to the lateral sinus and internal jugular vein, and that, in all

probability, secondary abscesses would follow. In a few days a large abscess showed itself in the left sterno-clavicular articulation ; then came pain and swelling, about the left knee and ankle, and inflammation at the back and lower part of the left lung ; and ultimately there was a large deep-seated abscess at the back of the left hip. The abscesses were opened in due course, but the mischief about the knee and ankle-joints and in the lung subsided ; the patient gradually recovered, and in a few months was quite well again. The conditions under which this lady was placed was unexceptionable---a large, airy, well-ventilated room looking on to an open country.

A young lady had, after her confinement, severe symptoms of low peritonitis, and was in great peril for some days : she recovered, however, and appeared to be going on well for a time, when the left shoulder became very painful, and for this I was asked to see her. Examination proved that the joint itself was not affected, but the parts around were much swollen and very painful, and especially so in front of the joint. Ultimately, a large abscess formed in this situation ; it was opened and the patient got well and went into the country, where some weeks afterwards, deep-seated matter formed in the pelvic region ; this burst into the vagina, and after a time she recovered completely, and has remained in good health ever since.

An officer in one of our light cavalry regiments, aged 18, came under my care for gonorrhœa. The symptoms were severe, and so he kept at home, and was treated with opiates and demulcents. About a fortnight after he had been under treatment, symptoms of what appeared to be gonorrhæal rheumatism made their appearance. First, the left shoulder-joint was affected, but after a while the symptoms subsided ; then, without any apparent cause, came rigors, profuse sweatings, and a dusky appearance of the skin, with great disturbance of the general health. These symptoms were soon followed by intense pain in the left sterno-clavicular articulation, which became much swollen

and in a few days presented evident signs of fluctuation. A large quantity of matter was let out. Inflammation and suppuration in and about the right hip-joint, accompanied by the most intense pain, followed. In due course the matter was let out; and subsequently numerous small abscesses formed in the skin over various parts of the body. The patient was reduced to a mere skeleton, and, notwithstanding the greatest possible care, the whole sacrum became exposed. The more intense symptoms about the hip having subsided, the patient was now turned over to his left side; but in a few days the skin over the great trochanter gave way, and the bone became exposed. He was then propped up so as to rest mainly on the ischiatic tuberosities; and, as the skin here after a while gave way he was once more turned on to his back, the sacrum being by this time for the greater part covered over by healthy granulations: and whilst in this position the skin over the various spinous processes of the vertebræ which happened to touch the bed, gave way. What with one thing and another, I never saw a patient suffer more intense agony, which was such, indeed, as to necessitate the full administration of chloroform fifty-five times consecutively for the dressing of the various sores; but, notwithstanding all this, he ultimately recovered with an anchylosed hip. The onset in this case was in the early part of the year; and the patient's room, large, lofty, and well ventilated, was in a house in one of our great squares. When this gentleman first came under my care, he was one of the healthiest looking young men I ever saw, strongly built and most active; and he subsequently was one of the most dashing light cavalry officers in our central Indian campaign.

(To be continued in May Number.)

CANADA

Medical and Surgical Journal.

MONTREAL, APRIL 1874.

SANITARY REFORM.

Two years ago we published a series of papers in this journal with the above heading. Some of these articles received the attention of the local press and were copied *in extenso*. The object we had in preparing those articles was to point out the grievous wrong done to this country by the neglect of some definite system of legislation on sanitary matters. It is difficult, nay, impossible, in the present crude state of things, to carry out any sanitary regulation by health boards. In our cities individuals may be forced to cleanse their premises, remove offal, &c., and perform other minor offices conducive to the general good, but they cannot be forced to submit to vaccination, nor to separate those suffering from contagious diseases from those unaffected. In case of sickness they cannot be forced to seek medical aid, and in case of death to give a certificate as to cause, either from a physician or a coroner. The register of births, marriages and deaths is a mere matter of custom with the people. There is no definite law on the subject, nor are they liable to fine or any other penalty by neglect of such a duty. Individuals cannot be forced to relinquish the occupation of premises which do not afford a sufficient breathing area for the preservation of their health. Builders cannot be forced to preserve a certain reasonable distance between tenements for the poorer classes. Land is becoming so valuable in and about our large cities that those engaged in the business of providing tenements for the working class cover every available space of ground with inferior buildings, so that after the lapse of a few months, such residences become so saturated with human

emanations of all kinds, as to be highly detrimental to health. In fact, they are so many fever beds, and have been aptly so called. Corporations of cities cannot be forced to adopt common sense sanitary measures. The people are obliged to pay taxes ; in many instances these taxes are injuriously high and oppressive. These the people would cheerfully submit to, if they received anything in return, such as clean streets, wholesome drinking water, trapped sewers, proper sewer ventilation, so as to avoid the chance of having the deadly emanations of typhoid fever and other contagious diseases served up to them with every meal. And again, in the case of the occurrence of epidemic disease, there is no existing authority or law whereby certain sanitary regulations can be enforced which are known to be indispensable in arresting the spread of contagion, These are a few of the sanitary wants which we would urge on our Parliament. We observe that a few gentlemen in our city have formed themselves into what they style the "Sanitary Association." They have taken up no less a subject than syphilis, and the means for its prevention and removal. The country at large would be greatly obliged to them if they would devise a plan for carrying out their idea with efficiency—an idea, by the way, which has baffled all who have indulged the hope of success in this matter. Far be it from us to wish to discourage these ardent movements, or to ridicule these efforts. But we may observe they will bear no fruit, and we would simply advise these gentlemen to pass over in silence the consideration of this filthy subject, which is not a greater evil in Montreal than elsewhere. We might further remark that the Association in its published report indulges in much that is sensational, but which is not consistent with facts as recorded by other observers. Why will not the Association devote their time and energy in forcing on the city the urgent need of at once establishing a small pox hospital. Prostitution, however it may be condemned and abhorred for its moral debasement and disgusting consequences, is a kind of neces-

sary evil, and will continue to exist until the commencement of that utilitarian age when a certain few males will be set aside for pro-creative purposes and all others emasculated. This would be an uncommonly good and very interesting subject for discussion, and we trust our sanitarians will take it np with due gravity.

But to return to the requirements of the country in sanitary legislation. It is well known that the greater number of diseases are preventible; that disease when it does occur proceeds from our own neglect of some common sense rule of every-day life. Man is so obstinately brutish that he cannot be advised. No amount of advice will induce him to depart from his own preconceived opinions. He sets aside the opinion of experience; he gives no credence to the sanitary ordinances of Holy Writ; nor will he, unless obliged by law, under the fear of penalty, carry out any measure which is for the general good, if it in any way clashes with his own inclination or his pecuniary interest. It becomes, therefore, a necessity that sanitary regulations should be introduced and and enforced by law. In the absence therefore, of any sanitary regulation, it is not too much to demand of our Legislature a stringent Public Health Act. We may observe that it is of greater moment to this country than even a Pacific Railway. The present administration have obtained power by a cry of neglect, jobbery and corruption. We trust they will enter on the task of guiding the ship of state with clean hands, and that all attempts at corruption, however trivial, will be put down. The greatest amount of corruption exists in the neglect of the general sanitary weal of the people of this Dominion, for it leads to corruption, not only of our morals, but of our very flesh, as its course and end is death.

CITY HOSPITAL, ST. JOHN, N. B.

We observe and record with pleasure the announcement that recently the City Hospital at St. John, New Bruns-

wick, received a donation of $40,000, being the amouut of unclaimed deposits in the Savings Bank of that city. Our informant adds that the interest on this amount, together with the assessment for hospital purposes, keeps the institution in good working order.

ANNUAL CONVOCATION OF McGILL UNIVERSITY.

The annual convocation of McGill University for the conferring of degrees in the Faculty of Medicine and Law, was held in the "William Molson Hall" of the University on Monday afternoon, the 30th March, 1874. The Students, Graduates, and many friends of the University began to arrive long before the commencement of the ceremonies. The Hall being well filled with ladies, many of whom were relatives of those who were about to graduate in Law and Medicine. About three o'clock the members of convocation, who had assembled in the Library, marched in order of precedence to the Convocation Hall.

The opening prayer was read by the Rev. Dr. CORNISH. The minutes of the last meeting in convocation were read by the Secretary and duly confirmed. The Dean of the Medical Faculty, George W. Campbell, A.M., M.D., submitted the following report of the Medical Faculty for the session just closed.

The total number of students attending the Lectures of this Faculty during the past session was 130, of whom there were from:

Ontario, 71,	United States, 2,
Quebec, 50,	New Foundland, 1,
Nova Scotia, 3,	West Indies, 1,

New Brunswick, 2.

The following gentlemen, 33 in number, have passed their primary examinations on the following subjects; Anatomy and Physiology, Chemistry, Materia Medica and Pharmacy,

Institutes of Medicine, and Botany and Zoology, their names are as follows :

NAMES.	RESIDENCE.
Bain Hugh U., B.A.,	Perth, Ont.
Benson Joseph B.,	Chatham, N.B.
Bomberry Geo. Ed.,	Brantford, Ont.
Brossard Jean-Bpte.,	Laprairie, Q.
Burland Wm. Henry,	Montreal, Q.
Christie Jno. H., B.A.,	Lachute, Q.
Clarke Fincastle, G.B.,	Collingwood, O.
Coyle Henry W.,	Berthier, Q.
Craig Thornton,	Glengarry, O.
Dickinson Salter M.,	Cornwall, O.
Dorland James,	Adolphustown,"
Dowling John F.,	Appleton, O.
Duncan George C.,	Port Dover, O.
Falls Samuel K.,	Carp, O.
Farley James T.,	St. Thomas, O.
Gilbert Henry L.,	Sherbrooke, Q.
Goodhue Perkins J.,	Danville Q.
Graham Kenneth D.,	Ottawa, Ont.
Hanington Erst. B.C.,	Shediac, N.B.
Hanover William,	Pakenham, Ont.
Jamieson Thos. A.,	Lancaster, O.
Kearney Wm. Jos..	Montreal, Q.
Langlois Onesime X.,	Windsor, O.
MacDonald Alex. R.,	Texas, U.S.A.
McArthur John A.,	Lobo. O.
McDermid William,	Martintown, O.
Mattice Ira Richard,	Moulinette, O.
Meek James A.,	Canning, N.S.
Nelles James M.,	Brantford, O.
Scott William F.,	Hull, Q.
Tunstall S. J., B.A.,	Montreal, Q.
Ward Michael O'B.,	Montreal, Q.
Woods Edmund J.J.,	Aylmer, Q.

The following gentlemen, 31 in number have passed their Final Examination on the following subjects: Theory and Practice of Surgery ; Theory and Practice of Medicine, Obstetrics and Diseases of Women and Children ; Medical Jurisprudence and Hygiene, and also clinical examinations in Surgery and Medicine conducted at the bed-side in the Hospital. These exercises entitle the successful candidate to the degree of M.D., C.M.

The names of the Candidates, their residences and the subject of their Thesis are as follows :

NAME,	RESIDENCE.	THESIS
Cameron James C.....	Montreal, Que.....	Clinical Reports
Cline John D., B.A.....	Cornwall, Ont.....	Treatment of Aneurism.
Harvey William A.....	Newbridge, "	Intermittent Fever.
Henderson Edward G....	Belleville, O.....	Acute Rheumatism.
Hickey Samuel A., B.A.	Aultsville, ".....	Acute Bronchitis.
Hockridge Thos. G.....	Bradford, ".....	Tetanus.
Jones Charles R.....	Hastings, ".....	Spina Bifida.
Jones George Nelson...	St. Andrews, Q.....	Surgical treatment of Hemorrhage.
Macdonald Roderick A.	Cornwall, O.....	Puerperal Fever.
McBain John.	Williamstown, O.....	Enteric Fever.
McCormick Andrew G..	Durham, Q.....	Anæmia.
McDonell Alex. R.....	Loch Garry, O.....	Acute Pneumonia.
McMillan Œneas J.....	Edwardsburgh, O.....	Hospital Reports.
McQuillan James.....	Marquette, Mich. U.S....	Diptheria.
Mines William W.....	Montreal, Q.....	Gangrene.
Molson William A.....	Montreal, Q.	Clinical Reports.
Moore Charles S.....	London, O.....	Puncture of Bladder.
Moore Jehiel T.....	Holbroke, O.....	Clinical Reports.

NAME.	RESIDENCE.	THESIS.
Norton Thomas	Montreal, Q.	Typhoid Fever.
Pattee Richard P.	Hawkesbury, O.	Concussion and Compression of the Brain.
Phelan James	Stratford, O.	Spermatorrhæa.
Prosser William O.	Lunenburg, O.	Bronchitis.
Rattray James C.	Portage du Fort, Q.	Pleurisy.
Reddick Robert	Prescott, O.	Uterine Hæmorrhage.
Ritchie John L.	Halifax, N.S.	Immovable Apparatus in Fractures.
Rogers Amos	Bradford, O.	Hosp. Reports, Dis. Chest.
Sinclair Coll.	St. Thomas, O.	Acute Bronchitis.
Speer Andrew M.	Richmond, Q.	Puerperal Fever.
Sutherland Walter	Helena, Q.	Morbili.
Wales Benjamin N.	St. Andrews, Q.	Cerebro-Spinal Men'gitis.
Wallace Isaac W.	Milton, Q.	Chemistry as allied to Medicine.

One of the above-named Gentlemen, Mr. E. G. HENDERSON, has not yet completed his twenty-first year, and, on that account, cannot graduate at this convocation. He has, however, passed all the examinations, and fulfilled all the requirements, and only awaits his majority to receive his Diploma.

EXAMINATIONS IN BOTANY AND ZOOLOGY.

CLASS I.	CLASS II.	CLASS III.
Washburn (Prize)	Bell	Hervey.
Cotton, (2nd Prize)	Eberlé	Cannon.
Campbell	Fraser	Munro.
Fortin	Hickey	Park.
Cream	Cameron	Storrs.
Stevenson	Brodie	Prevost.
	Miner	Baker.
	Johnson	Elliott.
	Grier	Meek...
	Dettmers	Quigley.
		Mulloy.

ZOOLOGY.—Johnson.

PRIZES.

The Medical Faculty Prizes are three in number :

1st.—The Holmes Gold Medal, (founded by the Faculty in memory of their late Dean) awarded to the graduate who receives the highest aggregate number of marks for both Primary and Final Examinations, as also for an inaugural Thesis.

2nd.—A prize in books awarded for the best examination —written and oral—in the Final branches. The gold medalist is not permitted to compete for this prize.

3rd.—A Prize in Books awarded for the best examination —written and oral—in the Primary branches.

The Holmes Medal was awarded to JOHN D. CLINE, B.A., Cornwall, Ont.

The Prize for the Final examination was awarded to James C. Cameron, Montreal, Queb.

The prize for the Primary Examination was awarded to Simon J. Tunstall, B.A., Montreal, Queb.

The following gentlemen, arranged in the order of merit deserve honourable mention:

In the Final Examination Messrs. Sinclair, Molson, Mines, Ritchie, Sutherland.

In the Primary Examination, Messrs. Benson, Haningtон, Burland, Bain, Scott, Brossard and Langlois.

Professor's Prizes.

BOTANY.

First Prize.....W. Washburn | Second Prize....C. L. Cotton.
Prize for collection of Plants.....C. McL, Lang.

PRACTICAL CHEMISTRY.

Prize..... C. S. Sinclair.

PRACTICAL ANATOMY.

Senior Prize.	Junior Prize.
Smith.	Campbell.
	Murray.

The Graduates in Medicine were then brought forward, and the "Sponsio Academica" having been administered by the Registrar, Professor Craik, M.D., the ceremony of capping was performed by Principal Dawson.

The Valedictory address, on the part of Graduates, was then delivered by Dr. Mines, after which Professor Ross, A.M., M.D., addressed the Graduates on behalf of the Medical Faculty—(This address will be found in our original department).

After the proceedings of the Law Faculty, and an address from the Principal the benediction was pronounced and the convocation adjourned.

NOTICE TO SUBSCRIBERS.

Mr. Humphreys of the *Montreal Gazette* will call on the subscribers in Ontario in the course of the month of April, and we trust those of our friends wishing the prosperity of this Journal will make a prompt settlement of their indebtedness to us.

Montreal, 30th March, 1874.

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

Chronic or Mummified Gangrene of the leg occurring during an attack of Acute Mania.—Amputation—Recovery. By Thos. Simpson, M.D.

Miss ——, aged 19 was seen by me on the evening of the 15th October ; three days previously she had been in attendance on a sick friend and since has felt weary and generally "out of sorts." She had been low spirited for eight or ten days owing to a comparatively trifling family trouble. At my first visit she complained of general malaise, loss of appetite, inability to sleep at night and seemed depressed and melancholy, speaking to her friends in a gloomy and sometimes confused manner. She complained of a dull aching pain in the region of the heart and a sense of oppression, and answered questions in a dejected, hesitating, unsatisfactory way. On an examination of the heart no organic disease or derangement could be discovered. Pulse 110, regular but small, pupils natural, skin cool, bowels tolerably regular, tongue slightly coated, menstrual flow (she is now unwell) has regularly occurred every three weeks, and is usually copious but without any other peculiarity. I am told that she has always been a healthy active girl, with a keen enjoyment of life, of a determined disposition and a more than average flow of animal spirits ; she is over the medium height, large boned and spare. The only departure from health since she was

four years of age, when she had small-pox, was an attack, on two occasions some years ago, of hysteria induced by fright. These attacks were of short duration and the recovery complete. Her father—up to the time of his last illness being a hale hearty man—died at the age of sixty-two years, of congestion of the brain. Her mother is alive and in good health, aged sixty-four. It is well to mention here that during the second week of her daughter's illness she was suddenly seized late in the evening with a severe epileptic convulsion which recurred, with intervals of semi-consciousness, several times during the night. This is the only attack of the sort she has ever experienced and was no doubt occasioned by over exertion and want of rest added to her extreme anxiety on her daughter's account. She recovered completely on the third day. This seizure in the absence of a satisfactory family history, which could not be obtained, is of a certain value as regards her daughter's derangement. The patient has two brothers and one sister older than she, all of whom have always been healthy. She was ordered to bed, to be kept quiet and to have a dose of morphia at bed time.

October 16.—Slept comfortably for several hours during the night. Is much excited. Conversation disconnected and rapid. Does not complain of pain or any inconvenience. Answers questions rationally but immediately relapses. Pulse still rapid and weak. Pupils and skin normal. Ordered Potas. bromid. gr. xx. terindie.

17th October.—Consultation with Dr. Craik. Symptoms of mental disease all increased. Great excitement. Hysterical in character. Dwelling on love and kindred subjects. No sleep last night. Ordered Chloral hydrat. gr. xx. to be given at bed time if necessary to procure sleep. She continued much the same until the 22nd when violent mania was developed. It required the united force of three strong persons to restrain her and on the 23rd a strait waistcoat and bandages had to be used. She remained in this state until the evening of the 26th when the fierce delirium

abated. Though still in a great degree unconscious she was calmer; pulse weak and rapid. On the following morning I was summoned to see her and told that she appeared to be dying. I found her in a state bordering on collapse. Beat of the heart and pulse almost imperceptible. General surface, but especially the lower limbs, cold; voice weak. Hot wine was plied liberally during the day in addition to strong beef tea, and quinine and phosphoric acid were substituted for the bromide. Towards evening she rallied. On the morning of the 28th she complained of severe pain in the right foot, on examination it was found cold, and three or four pale purplish patches of small size were remarked on the toes and dorsum and attributed to bruises received during her struggles. There was no swelling or œdema. The purplish patches gradually coalesced, became darker in colour and ended in perfect dry gangrene of the foot, which retaining its shape became as hard and dry as horn. The subcutaneous veins of a darker colour than the surrounding parts could be distinctly traced as small hard cords. The dry gangrene extended above the ankle joint and merged into an ordinary slough at the line of demarcation which formed irregularly a little above the middle of the leg. The process occupied several weeks, during which the patient remained constantly insane, talking in a most incoherent manner for hours together, then breaking into snatches of song; sometimes tractable, at others fierce, and controlled with difficulty, attempting to tear and destroy everything within her reach; no lucid interval; no convulsion. Ordinarily there was no fever but at times there was a slight flush and temporary increase of temperature. Pulse always extremely weak and rapid, ranging from 120 to 140. Pupils natural. Muscular strength remarkable, considering the state of the circulation. Urine free from albumen. Fæces and urine passed in bed without notice. No menstrual discharge since the first week of her illness. Appetite capricious; bowels irregular; wakefulness. Towards the middle of December

she gradually sank into a low typhoid condition. The raving became muttering delirium. The tongue was dry and fissured; sordes formed about the teeth and gums—everything pointed to a speedy dissolution. From this state she slowly emerged; her mind began to clear; she became cognizant to some extent of the state of the leg. Her appetite improved; her sleep became natural; the menses returned, and she made known her desire to evacuate the bowels and bladder. About the middle of January the gangrenous parts had separated from the living down to the bone, and the calibre of her mind might be compared to that of a child of six years of age with a certain amount of cunning added. The amputation was delayed until the 31st of January owing to the extremely rapid state of the pulse and in order to allow of improvement in her mental condition. On that day, assisted by Doctors Craik, Hingston and Roddick, the leg was removed at a point immediately below the knee joint. Chloroform was administered, and Esmarch's bloodless method success fully employed.

The stump healed slowly but without any untoward symptom and the patient is now able to sit up in an arm-chair. Her mind is still weak and capricious but there is every reason to hope, from the progress of the last month, for steady improvement.

The quinine and phosphoric acid treatment adopted on the 27th of October was continued until the end of December with occasional short intervals during which she refused to swallow medicine. Morphine in gr. ¼ doses was given at bed time and acted most beneficially, soothing the patient and encouraging sleep. The state of the pulse seemed to indicate the necessity for stimulants but on trial it was found that even a small wine glassful of porter had the effect of flushing her face and rendering her more restless and excited. The local treatment consisted in swathing the affected limb in cotton wool, and in gentle frictions to promote the circulation and endeavour to limit the gangrene.

The diet consisted of eggs, milk, beef tea, oysters and a quantity of fresh fruit, such as grapes, oranges and apples.

The precise cause of the gangrene in this case is somewhat obscure. Dr. Howard examined the heart early in the disease and was unable to detect any organic lesion. It was noticed that there was no arterial pulsation discoverable in the affected limb, even in the femoral at its upper part, whilst the pulsation in the artery of the opposite side was quite apparent. It was also remarked that the pulse in the right arm was extremely weak, being scarcely perceptible—a mere tremor—in the radial at the wrist.

Shortly before the operation, pulsation of the right femoral could be traced for two or three inches below Poupart's ligament—probably at the point at which the profunda is given off.

Dr. Craik who kindly saw the case with me on several occasions, noted these peculiarities. The circulation in the stump at the time of the operation seemed to be sufficiently active. The larger vessels were tied before the removal of Esmarch's elastic band, but on its removal two small branches situated in the posterior flap spouted vigorously.

Dry gangrene has been met with as a result of constitutional adhesive arteritis terminating in occlusion of the vessel at the site of inflammation or at a considerable distance from it, by the washing away by the blood of the fibrinous formations and their impaction in smaller branches —embolism. The arteries most liable to this form of inflammation are, it is said, the iliac and the axillary.

It is possible that the gangrene in the case under consideration was occasioned by the obstruction of the femoral artery to a greater or less extent by a fibrinous plug or fragments, originating in some part of the course of the iliac.

This case was reported and discussed at the last meeting of the Medico-Chirurgical Society.

MONTREAL, April 6th, 1874.

Case of difficult labour, failure to deliver with forceps. Version successfully performed. By T. Howley, M.D., St. John, Newfoundland.

Perhaps the following case may be deemed of sufficient interest to your readers to render it worth publishing.

I think it offers a fair type of a class of difficult cases not infrequently met with in practice, and there can, I think, be very little doubt that many children are lost by the sacrificial operations in cases of moderately contracted pelvis, who might have been saved by a timely resort to turning where the forceps has been fairly tried and found insufficient to effect delivery, as advocated by Dr. Robert Barnes in his work on obstetric operations.

Case.—Called out of town about six miles at 3 a.m., Dec. 18th, 1873 to Mrs. W., multipara, eighth pregnancy at about 40. On enquiry I learnt that she had always had difficult labors, having been on every occasion delivered instrumentally, viz: four times by forceps and three by craniotomy. She has two living children, both girls; had never brought forth a living male child so far. I found that the patient was very short, almost dwarfish in stature, and had evidently a contracted pelvis, though without any evidence of distortion or spinal deformity. Labor was in full progress, having got so far as the second stage, with strong and frequent expulsive pains; head presenting but not being able to enter brim. Having the previous obstetric history of the patient before me, I applied the forceps without delay after having chloroformed her, and succeeded in locking them without much difficulty, thus shewing: firstly, that the case was a fit one, for their trial; secondly, that the contraction of the pelvis was not excessive. I kept them on for over an hour using all the tractive force I dared, but without causing the head to descend or engage in the brim. I then came to the conclusion that delivery was not to be effected in that way, and in the absence of a consultation which was not easily to be had, I had to

decide between craniotomy and the attempt to deliver by turning. Having but recently been reading Barnes and been struck with his remarks upon the value of turning in similar cases, I determined to put them to the test,and accordingly, with a good deal of difficulty, succeeded in getting hold of a foot, and after long and exhausting efforts at length effected version. The liquor amnii had pretty nearly all escaped and the uterus was consequently closely moulded around the fœtus, hence the difficulty. It was surprising how comparatively easily the head, which could not be either coaxed or forced through when presenting by its rounded globe, passed the contracted brim when coming base first. There was not certainly five minutes delay or detention of the head, and the rest of the labor was effected without trouble or accident.

Considerably to my surprise, seeing the hard usage to which it had been subjected, the child a full-sized male, showed signs of animation, and with care and a good deal of attention came to all right. The sex of the child, no doubt just made the difference in the size of the head which rendered delivery by forceps impracticable.

I have only to say further that mother and child did well and have continued so ever since.

The time occupied altogether in the delivery was four hours. The want of assistance is a great drawback especially where chloroform has to be administered and kept up for hours.

St. John, Newfoundland, April 8, 1874.

Correspondence.

(*To the Editor of the* Canada Medical Journal.)

Montreal, March 28, 1874.

Dear Sir,—In your issue for February, 1874, I find your editorial observations upon the article in the *British Medical Journal* of January 17, 1874, upon the "West

Haddon Tragedy." With the verdicts of the coroner's juries in the case I have nothing to say, the evidence put before a jury may be of two distinct characters, moral and medical, either of which may be sufficiently strong for the jury to come to a conclusion upon.

In this case it is upon the medical evidence that I wish to occupy a small space in your columns.

In your comments, you mention that "the family physi-"cian found a high temperature of body, and that this "induced the Chemical expert, (Mr. J. D. Rodgers, of "London) to state that he was of opinion that deceased had "died from some volatile noxious substance, given to her "immediately prior to death, but which he was unable to "detect;" on reading this text, and your criticisms thereon which would be very just provided the text were correct, and on referring to the *British Medical Journal*, I felt there must be a mistake somewhere. I therefore wrote to my old teacher, and fellow labourer in Chemical science for an explanation of what seemed to me not to be the whole truth; from his reply received since your last issue, I make the following extracts: After giving the facts of the case as proved in evidence, constituting the moral evidence in the case, and which the jury took into their deliberations as well as the medical evidence, Mr. J. E. D. Rodgers says, "under all the circumstances you will not be sur-"prised at the exhumation. I found the œsophagus "distended with the same matter as was in the stomach; "I found no cause for immediate death, but I found morphia "assuredly, but I could not estimate the quantity as I had to "go over much ground, with little to work upon, and had "nothing to guide me.

"What I said at the inquest was as follows: I have "found no mineral poison whatever; I have found an "alkaloid, a trace, and by that I mean a quantity that will "enable you to determine the nature of the substance but "not its weight; it is morphia, without a doubt; morphia "would account for the symptoms on the Saturday but was

"clearly not the cause of death. I have discovered no poison "to account for the immediate cause of death. That I was "not in a position to state what was, but that I considered "that the high temperature of the body militated against "the heart disease, being the cause.

"Being asked if in the course of my experience I could "suggest any poison that could cause death, and after a "month not be discoverable? I replied,—that was a ques- "tion that I had hoped would not be put, for I had a great "objection to speculate as to the cause of death when I "had found no poison to account for it, but in answer I "said that a dose of prussic acid and certain other volatile "poisons would cause death and would not be discovered "after a month's burial, but I added, I repeat that in this "case I have found no poison or trace of any poison, to "account for death." His statement of evidence given by my friend Mr. Rodgers materially alters the aspect of the the case as far as the medical and chemical evidence as to the cause of death is concerned, and also takes away the basis of your criticisms thereon.

I crave space in your columns for the above to counteract any injurious opinion your readers may have been led to form from your article upon the evidence of my friend, erroneously reported in the *British Medical Journal.* Whilst sympathizing with the unfortunate sufferers in this case, and observing the good old maxim, "De mortuis nil nisi bonum," we have still a duty to perform towards the living, to be just to them, and not blame the medical experts for foolish or knavish evidence which they did not give. By inserting the above in your next number you will do an act of justice towards my friend, and oblige

Yours truly,

G. P. GIRDWOOD, M.D.

Prof. Practical Chemistry,

McGill University.

Books Received for Review.

Clinical Electro-Therapeutics, medical and Surgical. A Hand-book for Physicians in the Treatment of Nervous and other Diseases. By ALLAN MCLANE HAMILTON, M. D., Physician in charge of the New York Hospital for Diseases of the Nervous System, Fellow of the New York Academy of Medicine, Member of the New York Neurological and County Medical Societies, &c. With numerous illustrations. New York: D, Appleton & Co. 8 vo., pp. 184.

The author tells us that "he endorses Electricity only as a very valuable remedy in certain diseases, not as a specific for all human ills, mental and physical." This statement certainly encourages us to receive the book with all the greater degree of favor, for nowadays the general failing with the supporters of electro-therapeutics has been to claim for electricity the possession of virtues far beyond those ever actually proven to belong to it. The pathology of diseases of the nervous system is confessedly often extremely difficult, and many of these being but little under the control of other remedies, from the commencement of the employment of electricity as a remedial agent, great things have always been looked for from it. Abused as this agent was at first, and as it is even yet by charlatans and imposters, its true and proper place in the practice of the healing art is at last gradually coming to be fairly and definitely settled. Everyone now admits the undoubted efficacy of the employment of this means in a variety of nervous disorders, but from the fact of little being taught about it either theoretically in our medical schools, or practically in our hospitals, manual treatises on the subject for the use of students and junior practitioners are especially valuable. It is divided into four parts, which treat respectively of electro-physics, electro-physiology, electro-thera-

peutics generally and special electro-therapeutics. The first three of these parts are compressed into less than one half the entire volume, the whole of the remaining portion being devoted to special electro-therapeutics. Under this head we are introduced to a great variety of diseases, almost all, of course, of the nervous system, either organic or functional, and the various modes by which they have been successfully treated by electricity are explained and illustrated. The chief affections thus treated ofare the following: *paralysis*—central, spinal, peripheral, hysterical, infantile, facial, &c., besides allied diseases, such as progressive locomotor ataxy and progressive muscular atrophy; next, *neuralgia* in all its varieties, facial, cervicobrachial, sciatic, &c.; next *convulsive diseases*, under which heading we have chorea, Scrivener's palsy, epilepsy, tetanus, torticollis, &c.; and, lastly, we have two chapters on the surgical application of electricity by means of electrolysis and by galvanocausty.

Whilst agreeing generally with the statements made there are certainly a few expressions from which we must beg to dissent. "It is the general opinion of dermatologists now-a-days," it is said, "that skin diseases are simply neuroses. Newman and Bärensprung and others unite in this conclusion. Numerous experiments substantiate the truth of this assertion and have proved that nearly all skin diseases are amenable to electricity." Against this we think there is still a general feeling that many affections of the derma are produced by a process of inflammation, and many others by a condition of depraved nutrition, and not merely by such a disturbance in the normal state of the nerves of the part as would permit of their being called neuroses. No one will deny that such diseases as urticaria and Herpes zoster are of nervous origin, but we find the assertion of Dr. Hamilton too general and sweeping.

In these troublesome functional disorders, chorea, epilepsy, paralysis agitans, &c., our author has nothing encouraging to say, eleciricity having proved only of doubtful value in a very few cases.

The neuralgias and some forms of local paralysis are the affections in which electrical currents have produced the most satisfactory results.

A considerable number of cases which have fallen under the author's notice are quoted in illustration of the various points, but, considering his extended opportunities for observation in connection with the State Hospital for nervous diseases, we think they might have been considerably augmented, especially as it is professedly a clinical and practical treatise.

We cordially recommend this book to every one desirous of acquiring information concerning the applicability of and the modes of applying electricity in the cure of disease.

The Sphygmograph: its physiological and pathological indications. The essay to which was awarded the Stevens' Triennial prize by the College of Physicians and Surgeons, New York, April, 1873. Two hundred and ninety illustrations, by EDGAR HOLDEN, A.M., M.D., 8vo. pp. 169. Philadelphia, LINDSAY & BLAKISTON.

The field adopted by Dr. Holden is, as he himself remarks, pathless and virtually unexplored. It is but a very short period since the invention of the sphygmograph of Prof. Morey, and the observations recorded having as yet been too comparatively limited, it follows that all the results here given are entirely original: and when we consider that we have presented to us nearly three hundred plates of pulsatile tracings, representing specimens from all conceivable kinds of disorders, we may form some idea of the amount of time and labor necessarily bestowed upon their investigation.

The Essay begins with a necessary description of the mechanism of the instrument. Dr. Holden's sphygmograph is a modification of that invented and used by Prof. Morey. In the latter the plate or surface which first receives the impulse from the artery is so arranged as simply to lie upon the vessel in close apposition with it, and to rise and fall

with every pulsation. Measurements of the *elevation* movement alone, are, however, according to Dr. Holden, quite fallacious. He believes that to get a correct idea of the real changes taking place in the blood-current in circulation, it is necessary to guage the *expansion* movement of the vessel. In accordance with this view the author has contrived a spring, which, possessing a hollowed portion in its under surface, thus embraces the artery, and in consequence measures by its attached levers the amount of *displacement* which takes place at every cardiac stroke. Other minor differences there are between the two instruments, but only in matters of detail which do not effect the principle of their action. From this subject we pass to the consideration of the translation of tracings, wherein are explained the terms employed in describing sphygmographic writings, and the significance of each portion of the hieroglyphic. Every cycle which embraces a complete pulsation is divided into four *events* as they are termed, and it is upon the relative proportion, shape and other characteristics of these that depends the interpretation to be placed upon any given specimen. This occupies three or four chapters, aud with one upon the compressibility or tension of the arteries, and the importance of ascertaining the exact character and extent of this, completes the first part. In part II, is then taken up the consideration of the normal character of tracings, and the deviations produced in them by disease. Great pains is taken by the author in the endeavor to establish the variations consistent with health, and the abnormalities produced by minor disturbing causes. Illustrative cases are then shown from patients suffering from a great variety of diseases. such as Heart-diseases, Delirium Tremens, Epilepsy, Asthma, Phthisis, &c.

Part III. is occupied by a series of drawings illustrative of the various effects produced npon the pulse by medicines, especially those of the narcotic type, and the whole is completed by several conclusions based upon the numerous observations made.

Up to this time this instrument has not been acknowledged as one of the diagnostic aids necessary for medical practice. But we believe that it is one that is yet destined to be of great service to medical science, and the thanks of all must be due to any one who gives time and energies for the accomplishment of this object. That its usefulness will not cease with its elucidation of various scientific physiological and pathological problems may also be fairly expected. It is not a mere toy for the amusement of the scientist, or the researches of the physiologist, but it seems to give promise of being a very valuable and faithful guide in many im-important ways, and in the most practical manner possible. Some of these our author has not failed to point out; for instance, he remarks, "It is at once evident, that could we satisfactorily determine the variations compatible with health, the sphygmographic record of an applicant for life insurance would be the safest record he could present us as a test of his condition, and this single feature could hardly fail to be of great pecuniary value in the country where the assurance of life is almost universal."

We cannot do better than conclude by another quotation from the essay itself. "The ability of any instrument to indicate the departure from perfect health, whether capable of indicating the precise character or not, would stamp it of practical value, just in proportion to its power to do this alone, or more certainly, or better than could be done by any other means. There are many reasons for believing that the sphygmograph will do all of these."

This study is certainly well worthy the attention of every physician wishing to keep up to the knowledge of his times, and we therefore cordially recommend Dr. Holden's essay, to the merit of which we have already borne witness, and which is confirmed by the bestowal upon it of the honorable Steven's Prize, by the College of physicians and Surgeons, New York.

The typographical part of the book is well executed, and the plates (white on black ground), are elegantly finished.

We are glad to learn that one of these instruments according to Dr. Holden's pattern has already been ordered from Boston for the Montreal General Hospital, for use by the Attending Staff and Clinical Classes..

Periscopic Department.

An Address on Pyæmia in Private Practice. Delivered before the Clinical Society of London. By PRESCOTT HEWETT, F.R.C.S., President of the Society, Senior Surgeon to St. George's Hospital, &c.

(*Concluded from April Number.*)

Some time after the occurrence of this case, the late Dr. Bence Jones happened to mention to me that he had been summoned into the country to a young gentleman who was suffering from well marked pyæmia, without, as far as could be ascertained, any previously existing suppurating surface, I then told Dr. Bence Jones of the above case of pyæmia, after gonorrhœa, and begged of him to ascertain, if possible, if his patient was suffering from gonorrhœa. The patient died before Dr. Bence Jones saw him again, but at the post-mortem examination the existence of gonorrhœa was clearly proved. A third case of a similar nature, and in a young gentleman, was also mentioned to me by Dr. Guéneau de Mussy.

Such, gentlemen, are the cases of pyæmia occurring in private practice, to which I wished to direct your attention. They are twenty-three in number, and twenty-one of them fell under my own notice ; the remaining two, the last being well authenticated, have been alluded to simply on account of their extreme rarity.

And now, if we proceed to analyze the circumstances under which pyæmia occurred in these twenty-three cases, it will be found that an operation was performed in six

instances only. In four of these (the first four) the operation was of the most trifling nature—a single-thread seton, a small wart on the heel, a small wart on the scrotum, a small sebaceous tumour of the scalp ; and it was only in the remaining two that the operation was of a somewhat severe character—amputation of the breast. Moreover, the first four were all in different years, and not in the same locality. The last two were in the same year, and within a month of each other ; but one was in town and the other in the country. And here let me note that the third case is also mentioned among those of recovery, this patient having had two attacks of pyæmia at several years' interval, and in different localities.

Of the remaining seventeen cases, in which no operation had been performed, there was a broken surface in eleven, and in six there was not even an abrasion. Of the eleven cases in which there was a broken surface, it was but small ; in ten, ulceration of a small sero-cystic tumour of the breast, of abscesses in two, of tonsils in two, of bowel in typhoid fever in three, a needle broken in the leg, a small splinter of wood in the great toe. The eleventh case was the only severe one—compound dislocation of the elbow. The six cases in which there was no abrasion were—a slight injury to the foot followed by suppuration, inflammation of the lateral sinus and internal jugular vein in connection with discharge from the ear after measles, abscess after parturition, and gonorrhæa in three. Of these seventeen cases none occurred at the same period or in the same locality.

As to locality, of the twenty-three cases, sixteen occurred in town and seven in the country. Of the sixteen in town, all, with one exception—that of the young girl who, after running a needle into her leg, was admitted with pyæmia into the Hospital,—were in the best parts of the town, scattered about, in good houses, and in good sized, well ventilated bed-rooms, and well cared for, in fact, to all appearances, under most favorable conditions. The country cases—seven—were in different parts, and widely separated

from each other, and their conditions, too, were in all respects apparently excellent.

As to age, the youngest patient was six, and the oldest close upon eighty. Of the remaining twenty-one, eleven were between fifteen and twenty-five, and ten between thirty and fifty.

As to local treatment, it was out of the question in several of these cases; and in several cases, too, all possible care and supervision on the part of the surgeon would have been of no avail. Of the twenty-three cases, eleven were under such circumstances.

In conclusion, pyæmia, it has been said, is caused, for the most part, by hospital air, by foul air consequent upon the aggregation of surgical cases in the wards of our large hospitals; but pyæmia occurs also in cases, even when placed under the most favourable conditions—perfect isolation, large airy rooms in the country, with plenty of fresh air, and in every way well cared for. Pyæmia appears, too, at times to be connected with atmospheric conditions; several cases occurring without any apparent cause, at or about the same period, in different places. The two cases of amputation of the breast, which were within a month of each other, followed exactly the same course, one, however, being in town, and one a few miles out of town. And at the same time that these cases were under my care, other cases of pyæmia, which occurred in private practice at the same period, subsequently came to my knowledge.

Moreover, cases occur in which patients are apparently prone to pyæmia; the case of a gentleman who recovered from an attack of pyæmia, and a few years afterwards died of another attack.

The truth is, the causes of pyæmia are still to be worked out; and this, gentlemen, is a problem, the working out of which I would strongly urge upon the Clinical Society.—*Medical Times and Gazette.*

Observations on Hare-Lip and Cleft Palate. By Sir William Fergusson, Bart., F.R.S., Surgeon to King's College Hospital.

It may seem recurring to an oft-told story, to refer to hare-lip as giving opportunity of saying anything new or good on such a familiar subject. I fancy that, in my time, I have seen considerable changes for the better in regard to the treatment of such cases, that even now, after the experience of many hundred examples, I think that I can make some observations worthy of consideration. The operation for this malformation was one of the first I ever performed on the living body. It was done some forty-five years ago, and ever since I have taken interest in it, both in my own practice and that of others. I have repeatedly, in public hospital practice, operated on two or three cases in a single day, and I have read most that has been written on the subject throughout my professional life. It may perhaps, be claiming more than I am entitled to, to say that, prior to the publication of my first edition of *Practical Surgery*, there had been little written regarding the anatomical condition of this malformation. There were few men, if any, alive who could state positively, or could show by specimens, what was the nature of the substance of the intermediate hard material in the midst of the two gaps in the upper alveolar ridge, in the case of double hare-lip. It was not known positively whether it was single or double. So far as I know, it was never even conjectured how it was held in its place; its relations with the vomer were unknown. The number of teeth likely to be developed in it, or their future quality, were little thought of, and the mass itself was found, in most instances, to be specially in the way of any contemplated operation. Until within these few years, there was not a skeleton of such a part in any museum in this country, and, in as far as I know, the specimens presented by myself to the Royal College of Surgeons are still the chief, if not the only, examples of the kind in our anatomical museums. Our knowledge on most such

matters is now so precise, that the intermaxillary bones are now spoken of as familiarly as those in lower animals, whereas the actual condition of the human subject had rarely, if ever, been either described of demonstrated. The difference of connection or attachment, in the cases of single or double fissure in the alveolar ridge, seems to have been entirely overlooked; for there was no description which told how, in the double fissure, the intervening mass was held in its place solely by being suspended from the point of the vomer and the rest of the columna of the nose.

The development of the teeth in these cases has also, in my opinion, attracted less attention than in the normal condition of the upper jaw; but it is less my intention to refer to such anatomical and physiological matters than to some points in surgery, which I think specially worthy of notice as part of the result of my long experience in such cases.

First, as to the date or age when operations for hare-lip are most eligible, there is no doubt in my mind that an early period is now most preferred. The custom of delaying until after the completion of first dentition has now almost passed into abeyance and the once prevalent idea that infants were specially liable to fatal convulsions after such operations may be said to have faded away. Experience has shown that they may be performed with safety at any period from a few hours after birth. Even at that dreaded period, first teething, harm is no more likely to happen than at any other time, provided always that the child be in good health. My own favorite date is from three weeks to three months after birth. Healthy-looking children at birth often pine and languish within the first few weeks, especially hare-lip cases, and particularly if the palate be implicated. I think it best to wait in such instances to see that health flourishes. A few weeks will give the requisite proof, and then, for many good reasons, I am of opinion that an operation should not be further delayed. I have a strong impression, from my experience, that the older a

patient is, the more is the effect of the operation perceptible on the constitution, bodily and mentally ; and I am equally convinced that, if it be performed at an age when there can be no subsequent recollection of the circumstance, so much the better for all parties. The parents and others interested in the infant are almost invariably in an unhappy state of mind until the operation is satisfactorily over. Maintaining, as I do, that the younger the patient is after the first three weeks, the safer and better is the operation, I consider it disloyalty to surgery to delay such a decidedly advantageous proceeding on doctrines which will not bear the smallest scrutiny. I have learnt facts regarding such matters that may appear more akin to romance than reality. I have been asked to see an infant, a few weeks old, with a simple single fissure in the lip, and, on my advice, the operation has been performed shortly afterwards, with the best results. Then it appeared that there was an older child in the family in a similar condition, which had been secluded in the nursery attics for several years. Happily, the experience of this younger family event was the means of freeing the poor child from seclusion ; for those who had advised against the operation took heart of grace, and put the senior on a par with the junior ; as far as the operation went. I have known an instance of a child being kept in the recesses of the nursery for eight or ten years for a severe deformity of the kind. It was never allowed to play with other children beyond the family, it was never allowed to leave the house without the face being muffled in thick folds of veil ; and, for long, the neighboring nursery maids had the idea that this poor girl, whose face otherwise was unusually handsome, was an example similar to the lady, famous in nursery story, with the pig's face. The opinion previously given, in regard to this case, had been based upon great ignorance of what was going on in surgery during the life-time of the poor sufferer.

But, to come more closely to the purpose of this paper, being of opinion that the intermaxillary portion or portions,

is or are very frequently the cause of much annoyance to the surgeon, often, indeed, being almost the direct cause of failure in operations, I am desirous of recording my experience on this subject.

In the case of double hare-lip, with double cleft in the alveolar ridge, there may be great projection, or little or none. In the latter case, particularly if the columna and lateral portions of the lip be of good size, there may be no need for meddling with the intermaxillary mass. If, however, the projection be considerable, or what may be called great, and if the columna and side portions of lip be scanty, there ought then, in my opinion, to be no hesitation about taking away the projection at its junction with the vomer. The attempt to push this part back by gradual pressure is troublesome, or well-nigh impossible, in most instances, even if, as has been proposed, its narrow neck be broken. In either instance, it has never been told from experience in what direction, the teeth come in the part thus displaced. In either or both instances, I have no doubt in my own mind that the teeth, if they came at all, would so slope backwards as to be of no value either for show or for use. There is, however, indubitable proof that, without thus meddling with the part, there are only two incisors of respectable size, after all, and these are of such indifferent quality, that they had better have been dispensed with at the earliest date. I, therefore, never hesitate to remove the intermaxillary mass when it seems the least in the way of a satisfactory operation. The advantages of doing so seem to me greatly to preponderate, and, if there be cleft hard palate at the same time, there is far greater chance, in after years, of the gap becoming narrower, whilst in adult life, there will be greater facility for the assistance of the dentist But I imagine, there is less hesitation or difficulty in the surgeon's mind in the case of capacious double gap, than when there is only a single one with considerable projection, of the intermaxillary margin. It is to such cases that the chief object of these observations is directed. If it be

difficult to apply compression on the intermaxillary portion in double cleft, it is still more so when only one side projects ; for its base is broader and firmer. The instances where there is no special projection are common, and require no comment, as there is then, as regards this matter, no obstacle to a satisfactory and successful operation ; but when there is a projection, if considerable, it is a more serious obstacle to these results than those inexperienced may imagine. I believe that this condition is a frequent cause of failure in the ordinary operation, particularly if it be done without the truss-compressor on each cheek to push the lateral portions of the lip towards the mesial line. In such a case, the surgeon is naturally anxious to leave the alveolar ridge untouched, and in accordance with a common practice, when it is desirable to secure union by first intention, when the stitches or needles are withdrawn, strips of plaster are carried from cheek to cheek to hold the union firm. Scarcely a greater mistake can be made, for, the line of union in the lip being generally, under such circumstances exactly over, or opposite to, the sharp angle of the projection of bone, the young cicatrix is pressed against it, and gradually thins away, until it is fairly split open, when the operation proves a failure. This I have a strong impression is an explanation of the failure of many cases that do not seem, in any special way, complicated. I do not mean that straps always conduce to this effect, and that, therefore, they should never be used. On the contrary, I have very frequently seen them of much service. But, if the single projection alluded to be conspicuous—in which case, there will always be a somewhat sharp, angular margin—it is, in my opinion, best to get rid of it at the time of the operation. In my own practice, I was at one time in the habit of cutting the projection away with sharp small bone-forceps, dividing gum and bone at the same time, and aiming chiefly at getting rid of the projection. This usually involved all the intermaxillary bone on that side, and implied, perhaps, little heed of what damage might be inflicted on the sound side,

although, latterly, I always passed the blades into the mesial line between the intermaxillary bones, so as to secure this side from material injury. In the course of my experience I fancy that I refined on this practice. I found that it was well to detach the portion as high up towards the nostril as could conveniently be reached, and here I discovered that, in all young subjects there was only cartilage to be divided. This could easily be done with the knife or scissors, and so, for many years, I have used only one or other of these instruments. Usually, I have passed the scalpel through the mucous membrane, under the frænum, up between the bones, and divided the cartilage, periosteum, and gum, to sever the part; and thus the use of cutting with the bone-forceps has been dispensed with, for, to say the least, such an instrument is coarse-like and clumsy in an operation for hare-lip on an infant only a few weeks old.

Whilst I can offer little objection to this proceeding, I fancy that I have recently fallen on one equally efficacious and void of certain objections which, I think might be urged against it. Instead of this sweeping wholesale abstraction, I content myself with making an incision, vertical, sloping, or horizontal, with a scalpel through the mucous membrane and periosteum, over the projecting piece of bone; with a few touches with a knife, or a little squeeze with finger and thumb, I so separate these tissues as to permit the entrance of a gouge of a quarter or three-eighths of an inch in breadth, with which I scoop out the body of the milk incisor-tooth in as far as it is formed, taking no heed of the cyst or of that of the permanent one, and even cut out such wall of bone as may be there; usually, at four or eight weeks, only small plates of bone. In this way, the hard projection is removed, and the tissues that remain offer no obstruction to the union of the junction of the lip in front, whilst the operation, as it appears to me, is less destructive, therefore more conservative, in character. There is thus left only the mucous membrane, with possibly some periosteum, which forms a soft cushion behind the

wound in the lip, and so the remaining intermaxillary bone is not divested of covering so thoroughly as when cutting instruments are passed in the mesial line to take all away on the offending side.

I have now adopted this plan in several cases, and have been much pleased with the effect and result. In one instance, I used a silk stitch to hold the edges of the wound in the mucous membrane together, but I doubt if it be needful, and I have not seen any spurt of blood from the deep part of the wound, such as that which I have often found, in other instances, has required the application of a pointed heated cautery. The wound has healed without attracting special notice. In the case where the stitch was used, the thread came away spontaneously, and, in the end, the gum appeared as if there had been no projection, and, therefore, no such operation.

It is now more than thirty years since I proposed the application of the practice of myotomy in the operation for cleft palate, Excepting in a few instances, objection has never been taken to the theory. There are instances where division of the levator palati muscles need not be resorted to, and union may with confidence be anticipated, but these are the exceptions ; and doubtless it is owing to this preliminary step, that I can boast of a success well nigh equivalent to the usual result in hare-lip operations. Half-a-dozen instances of non-union are all that I can number in between two hundred and three hundred operations. The result contrasts favourably with that of Roux, who, as is recorded, was well content with success in two out of every three cases on which he operated—amounting to about one hundred and twenty operations in all. My theory, I maintain, is as sound as that in the operation for strabismus ; yet I congratulate those who have succeeded without its application, and I freely admit that there are instances where the operation may and does, succeed without this preliminary to the ordinary process. Since the above date, when I drew attention to the remarkable success of Dr.

Mason Warren and some other American surgeons in this operation, particularly that of Warren, in dealing with cleft in the hard palate, I am not aware of any material modification in regard to the mechanical process of closing the cleft in the soft palate, but in cleft in the hard palate there have been many; and, in other matters respecting the operation, I know of no more interesting story than that of the gradual steps of improvement which have taken place in regard to this operation, within my own experience of professional practice.

In early days, more than forty years ago, I believe it was the custom, in all cases, for the surgeon to sit or stand in front of the patient, with a light on the palate as favourable as could be secured. The strain on the surgeon's neck back, and hands, was considerable; but, worst of all, he usually got his face so bespattered with blood that his features could scarcely be recognised. In the course of time, the operator gradually edged to the side, until, like the dentist, he came to do his work standing on the patient's right side, whereby he avoided the splutter incidental to such a spasmodic ordeal as the patient was of necessity subjected to. In my own practice, I soon preferred the recumbent position for the patient, whilst standing on his right hand. Every facility was given to sit up, spit, and gargle with cold water. The necessities for both these means of relief seemed urgent; more so, perhaps, in the operation which I myself practised—viz., the division of the levator palati muscles—a step which induced a more free escape of blood than simply paring the edges of the gap Then came two inestimable advantages—introduced by Mr Smith of St. Bartholomew's Hospital—the gag and chloroform.* The association of these two agents seems imperative; and, by their aid, Mr. Smith proved that the

* An admirable paper on these adjuncts was written by Mr. Smith in 1869, and published in the 51st volume or the *Medico-Chirurgical Transactions.*

operations on the palate could be performed in childhood as readily as after puberty. With such adjuncts, I have myself operated at all ages, from one year up to adult life. Chloroform without the gag would be worse than useless; the gag, without chloroform, would, in my opinion, add to the sufferings and miseries of the patient. Until I recognized the advantages of the gag, I supposed that the operation under chloroform would be specially hazardous; but when I found that, with the use of the gag, the blood could be readily sponged away, and the proceedings otherwise much facilitated, I fancy that the operation had reached a stage of perfection which left little to be desired as regarded art and science. With good assistants, skilled in chloroform, the use of sponges, and otherwise, it seemed to me that little was left for the surgeon to devise in regard to this difficult and formerly painful proceeding.

I claim to be the first in this country to have drawn special attention to Dr. Mason Warren's method of dealing with fissure in the hard palate. The proposal of that surgeon to peel the soft tissue off the bone on each side of the fissure in the hard palate has been extensively acted upon with varied modifications, but with very indifferent success. For myself, I may say that I have tried perhaps every plan that has been suggested, but I have been sorely mortified with the results. Some cases, after one or more operations, have turned out admirably; but in a large number the result has been such as to have made me despair of closing these openings by operative means. There are instances where such hopes should never be entertained, owing to the wideness of the gap and configuration of the parts; but there are probably as many as one half of the cases amenable to operation which have such slight deficiencies in the hard palate, that I have always acted on the idea that closure in the mesial line would or might be effected here as in the soft palate. Experience led me to give up the plan of Mason Warren of trying to close the gap in both soft and hard parts at the same time, even in instances

where the defect in bone was but slight, For many years latterly I have ceased to meddle with the front part of the gap where the bones have been implicated, reserving the attempt for a subsequent operation ; but, to facilitate the approximation of the margins of the soft palate, I have often followed the plan followed by Roux, of making transverse incisions, so as to divide the soft parts from the posterior margin of the osseous palate. Whilst I have had reason to feel satisfied with this step, I have in no way found my efforts to close the hole in the hard vault more successful. From time to time, on subsequent operations for the express purpose of closing such openings, I have been highly satisfied with Mason Warren's plan of separation—that of paring the soft tissue from the hard, by working from the margins outwards to the alveoli, sometimes, in addition, making the lateral incisions proposed by Mr. Field of Brighton, or by making these lateral incisions first, and separating the soft tissues towards the mesial line. In some instances, I have had good results from a sort of gliding process, facilitated by separating the front end of one of the flaps from its connections ; but, altogether, the success of these operations has not been equal to my anticipations or desires. Since using chloroform, I have been solicited by patients, again and again to try further operations, but the results have led me to give little encouragement to such proceedings. Latterly, however, a dawn has opened on my hazy views in this respect ; and my chief object in putting these observations on cleft palate together is to draw attention to my latest experience on the subject.

My impression is, that the frequent failure in this latter kind of operation is induced by the contraction of granulations, whereby the lateral portions are so drawn towards their original positions, that the union in the central line is either prevented or broken, and thus the gap remains when the side-flaps have resumed their original positions. An idea came into my mind years ago which, however, I thought so wild, that I could not dare to bring it into practice.

Repeated failures, however, by usual methods, brought it more forcibly into my thoughts, and I at last resolved to put it into execution. My project was that, instead of making the separation between the soft tissue and bony palate, for a quarter of an inch or so, I should divide the palate, soft tissue, and bone, about a quarter of an inch from the margin of the gap on each side, cutting the soft tissue on the roof of the mouth with a scalpel, and the bone, with mucous membrane above in nostrils, with a chisel, by means of which I could push the margins towards the mesial line; so that, having been previously made raw by removing the mucous membrane, they might be brought into apposition and held so by stitches.

This project was carried into execution in King's College Hospital on November 22nd 1873, in the following manner.

J. H., aged 18, had the soft palate closed two years ago; a small aperture remained in the hard, which had been twice operated on unsuccessfully by the ordinary proceeding. The patient was placed under the influence of chloroform, and the mouth held open by Wood's gag. The (1) aperture was about this size; the edges were made bare by dissecting off the mucous membrane; then, by means of a small scalpel, an incision was made on each side to this extent (2). The back part of these wounds penetrated the soft palate, and in front they were close to the bone. Then the point of a chisel was forcibly, but carefully, pushed upwards through the bone into the nostril through each wound, and, by slight (2) lateral movements of the blade, each lateral portion could be readily made to meet the other in the mesial line, whe reby theraw margins made at first could be placed in apposition. The parts were then held together by a single stitch introduced in the usual way, passing on each side, through the soft tissue, so that it might remain steadily in one place. At the conclusion, the conditions seemed much as after the operations formerly effected. Subsequently, granulations filled the lateral gaps as on previous

occasions ; but, when the stitch was removed, union in the centre seemed firm, and was not disturbed by any dragging power, such as I supposed had, in earlier operations, drawn the flaps upwards and outwards towards the bone. The result was perfect, and I have heard nothing to the contrary since the patient left the hospital. On the same day, I repeated similar proceedings on a patient who had had a successful operation on the soft palate, but on whom I had been unable, after four different attempts, to close (3) a fissure in the hard. Here the opening was larger, being about this size (3). Similar steps were followed, and, to all appearance, during the first eight days, with similar results. Two stitches were employed, but, on removal, the edges, where one had been, seemed to fall asunder. Two days afterwards, a new stitch was put in, by means of an ordinary aneurism-needle, and the margins made raw by a gentle scrape. The hole was thus closed ; and, on removal of the stitch, eight or ten days later, union was perfect. Since this patient left the house, a small separation has taken place, which has left an opening a little larger than a probe. I have recently had made, by Matthews Brothers, a modification of a most ingenious needle suggested long ago by my friend Mr. Brooke of Westminster Hospital, for introducing stitches into the soft palate in operations on cleft in that part. The point of his needle was sharp ; and I have often used it with much satisfaction. The point here, is blunt, like that of a common aneurism-needle.

Soon afterwards, a third case came under notice in private practice, wherein, after closing the soft palate, I had failed to succeed with the hard, by the ordinary proceeding. Here the opening was midway in size between the cases above related. The steps were much the same as in the first, excepting that I passed the thread through the lateral apertures without fixing it in the soft tissue. After the knots were tied, they never slipped from their position. These were left some days longer *in situ* than in the previous cases, and on removal union in the mesial line was perfect. This union I have recently heard, remains perfect.

A fourth case has recently come under my care at King's College Hospital. The gap here was larger than in the three preceding cases. It was an inch long, by more than a quarter of an inch wide. The lateral incisions were of proportionate length, and when the parts were brought together, a gap into each nostril was visible. Here three stitches were used, and, as in the case last related, they were passed through the side incisions, without piercing the soft tissue.

A fifth case is now under notice. Here the ordinary operation was performed on the soft palate in June 1873: and the front part, which involved a small portion of the hard palate, was left untouched, in the conviction that it would be better to leave it alone until a future date. The aperture left was at the end of the healing process, of this size. Here the scalpel and chisel were used as above described, and the parts were satisfactorily placed for union in the mesial line.

From the experience already obtained, as also from careful consideration of the subject, I feel justified in calling attention to this addition to what is already more or less familiarly known to those who have studied this complicated subject. At first thought, several strong seeming objections arise. It might be doubted if the osseous palate could be cut and moved in the way described. If an experiment were made on a roof of bone in the natural condition, it would be impossible; for, if the chisel were pushed through the bone a little on each side of the mesial line, it would be impossible to move the intervening portion towards the middle line, because the space is already filled up. This objection does not hold, however, in the malformation; for the space is not filled up, and the vacancy permits the osseous margins to be approximated. Then, division of bone on the two sides, and breaking the front part of each, seems so rude, rough, and destructive, that the idea arises that caries or necrosis might ensue. But in reality the process is, in my opinion, less hazardous than when the

flaps of soft parts are dissected or forcibly pushed or drawn off the bone. Besides the fact that these parts do not always unite, one flap or both will occasionally slough, and so things are rendered worse than ever.

In favor of the proceeding about which I now write, I can state from experience that the loss of blood is much less; and on that account there is less trouble in mopping out the pharynx, and consequently less hazard in the use of chloroform; that the tissues on the lower surface of the bones are not so much disturbed or divided as by the older process; that the periosteum and their tissues below are less disturbed than otherwise; and that, from all these circumstances, there seems less risk of sloughing of the semi-detached parts.

As to the healing of the lateral wounds, I am of opinion that the gap will invariably be closed, and that in the bond of union there will be a firm cicatrix of soft tissue, and possibly bone; that the vault of the mouth will be as firm as in a normal condition, and probably firmer than where a fortunate result has followed the process of Warren, Field, or Langenbeck.

These observations apply solely to instances where the surgeon, in a first operation, has not attempted to close the gap, or has failed in a design to secure union throughout. They will apply, however, with equal, even greater, effect to instances where heretofore, in my own experience, I have left the front part of the cleft untouched. I remember scores of instances of the kind, wherein I now feel confident the whole gap could have been closed by the process above described, with as I imagine, as much success as attended the operation on the soft palate. In case of defective hard palate, after the usual preliminaries, and having bared the edges of the gap in the front, in hard as well as in soft, I would now make the additional wounds with scalpel and chisel, as above recommended, thereby hoping to avoid a second operation by doing all at once, under the beneficial influence of chloroform.

Since the above was written, I have had an opportunity of passing these latter views into execution. A youth of eleven years of age, on whom I had operated soon after birth for wide hare-lip, was brought under my notice, with a fissure extending from the lip to the uvula. A year ago, I had advised delay of a proposed operation on the gap in the soft palate, which was very wide. Now, I thought I should venture to test the proposal in an unusually severe case. Under chloroform, the usual incisions for dividing the levator palati on each side were first made; then the edges of the gap were pared as far forwards as to within half an inch of the front; next the scalpel and chisel were used in the way described; and, finally, six stitches were introduced—two through the hard part, without piercing the tissue; and four through the soft parts, in the usual way.

Unfortunately, the first two stitches slid together, so that practically they acted only as a single one. The effect was, however, highly satisfactory. There was no tension in the front of the gap in the soft palate. The approximation of the bones took off all drag, such as is common under ordinary circumstances; and the result has been equal to my anticipations. The whole of the gap in the soft palate was united, and even a considerable part in the hard. With another operation in front—a repetition of this new process—I am convinced that the gap may be closed up to the alveolar ridge. I have no doubt whatever that, in instances where there is only a slight fissure in the hard palate, the surgeon, by use of the chisel, will thus be enabled to close it, and that in the soft with a certainty hitherto very questionable.

In my anatomical knowledge of such malformations, there is one condition which I fancy might prevent these views being carried into effect. In the generality of severe cleft in the hard roof, the lower and back part of the vomer is incomplete; but in some cases the vomer is entire, although perhaps swayed to one side; and it remains

attached by its lower margin to one side of the hard palate throughout. Here would be a difficulty which might puzzle; for, although the chisel might permit the approximation of the edges, it would be difficult to introduce stitches; but even here there would be a redeeming quality in the new process, for pushing the parts to the mid line might lay them so together that, though union should not occur, they would lie so close that a fissure might elude ordinary observation. In one of the cases above recorded, I have found that entire union in the mid-line has really not taken place. The margins are, however, in such close approximation that the want of union can be ascertained only by slipping the point of a probe through the suspicious-looking part.

With these remarks, I leave the subject for the present, under the conviction that I have touched new ground in a most complicated field of anatomy and surgery, and in sincere hope that I have added to, if not completed, the power of surgery in such cases of malformation.—*British Medical Journal.*

On the Local Treatment of Carbuncle. By PETER EADE M.D., LOND. F.R.C.P., Physician to the Norfolk and Norwich Hospital, etc.

In a recent number of the *Lancet* the attention of the profession has again been called to the subject of carbuncular disease, with especial reference to its peculiarities when manifesting itself on the face. As I have had quite recently under my notice and care an example of this serious form of the affection, in which I happily succeeded in cutting short its progress, and to all appearances aborted it in its early stage, I wish to record the treatment adopted and (from the experience I have had in several instances of carbuncle located elsewhere) to express my conviction that this method offers greater advantages than perhaps any other in the management of these important disorders.

In a short communication published in the *Lancet* for Dec., 11th, 1869, I recorded the particulars of a case of extensive carbuncle of the back of the neck which I had treated by the free application of carbolic acid to the diseased part, and especially by its free insertion into the holes and sinuses which had formed, as is usually the case, over the central portion, very early in the course of the disease. An experience since that time of two or three cases of large carbuncle and of many cases of carbuncular boils, treated by the same method, has proved to me that the action of this remedy is so definite and so constantly beneficial that I have no hesitation in recommending it to the favorable notice of the profession.

My recent case was this :—A gentleman of seventy years of age, but still strong and hale, had suffered for some weeks from asthmatic Bronchitis, from which he had in a great measure recovered, when he was suddenly attacked (now some five weeks ago) with pain and hard nodular swelling of the lower lip near to its right extremity. Almost immediately a double festering pimple formed over the centre of this swelling, and the painful induration rapidly extended past the corner of the mouth to the adjacent cheek, and, to a less degree, along the substance of the lip, causing also considerable œdematous swelling of the whole of this part. On the second day severe constitutional symptoms manifested themselves, and feelings of extreme illness were complained of. During this day and the next the tumefaction and hardness continued to increase, the festers over the centre of the original spot opened, and were moist with dirty pus, the whole of the lower lip and right corner of the mouth and the adjacent cheek became tense and swollen, and it was quite evident that a carbuncle was forming on the right side of the face. Into the centre of the two holes which had formed I now pressed with a probe some threads of lint soaked in a strong solution of carbolic acid in oil, (one part to four), and I also laid a piece of lint wet with the same over the apertures, so

as to supplement the small quantity which the shallow sinuses would contain. A little smarting was complained of, but the application was repeated after a few hours, and again the following day. Almost at the end of twenty-four hours it could be perceived that a check had taken place in the morbid process, but by the next day it was plainly evident that the inflammation and induration were really beginning to subside. The carbolized lint was still carefully and scrupulously thrust to the very bottom of the small holes, and from this time no further spread of the disease took place, but, on the contrary, there was a rapid subsidence of the œdema, and in two or three days more little remained but some diffused swelling of the lower lip, some tender induration at and around the seat of the original pimple, and the ragged discharging opening which had formed at the site of the primary festers. The disease was therefore stayed, and in a few days more the patient was convalescent. He is now quite recovered.

I should scarcely have ventured to instance this case as proving the aborting power of carbolic acid over carbuncular or furuncular inflammation—seeing that the disease never attained to very formidable dimensions, and that possibly it might not under any circumstances have increased to a very serious size or extent,—had I not witnessed precisely the same effects in other cases as was here produced by the application of the acid. My conviction, nevertheless, is that the carbuncle was not only rapidly extending, but that it would quickly have become both large and important. And I cannot help contrasting its course with that of one which I had the opportunity of seeing, in its latter stages, some three years ago, where the disease attacked the same parts of the face, where only the usual treatment by poultices, &c., was adopted, and where, (instead of a duration of about one week for the severe symptoms, and of about ten days more for recrudescence) the suffering patient passed through a morbid process which took many weeks to complete its course, and which

not only caused great and prolonged suffering, with great temporary disfigurement, but even at one time appeared to threaten life itself.

As I have stated, I have now used carbolic acid in this way in several cases of carbuncle; and in all of them its application has been followed by a uniform and immediate check to its increase, and a speedy amelioration of the local conditions. When it has been applied early, it has plainly gone far to abort the disease; and when it has been commenced later, wherever it could be brought into contact with the inflamed and hardened tissue, there at least no further spreading has taken place, while swelling and tension have diminished, and dirty suppurating slough has quickly given place to florid healthy granulation. And, from observation of its action, I entertain no doubt, that if it could be brought sufficiently early into contact with the spreading disease, it would be quite competent to prevent its extension beyond the degree to which it had already advanced. Unfortunately, the acid appears to have little or no influence when applied over the unbroken skin; but directly it can be brought into contact with the diseased mass, either by being inserted into the sieve-like holes, or by being applied to it after being laid open by incision, its beneficial action becomes at once manifest.

Much credit is, I think, due to the late Mr. Startin for having suggested that both boils and carbuncles might be due to the growth and spread in and beneath the skin of a parasitic development; and the efficacy of the treatment he was in the habit of adopting, the remarkable effect of carbolic acid in checking its increase, and the almost certainty with which boils in their early stages may be aborted by applying freely to the core of the festering pimple the acid nitrate of mercury, go far to prove the truth of this opinion.

It is extremely unfortunate that the carbolic acid cannot always be brought into sufficient contact with carbuncles in their early stage—partly because of the insufficiency of the sieve-like openings, and partly because the parasite-studded

(?) growth may have already extended beyond the central portion over which these are situated. But even with a very imperfect application I have observed a distinct retardation of the circumferential spread when the acid has been carefully introduced into the holes, conveying to my mind the impression that some destructive influence had been exerted upon the central root or stem of the diseased mass; and in all cases which I have hitherto observed, no extension of the disease has taken place from any part to which the acid has been fairly applied. Hitherto I have only applied it through the natural openings, or after the mass has been exposed by incision or caustic; but I think it extremely probable that a beneficial effect would be produced by the subcutaneous injection of a watery solution of the acid around its edges (after the manner in which it has lately been employed in the case of spreading erysipelas, and some other diseases), or possibly the spread of a large carbuncle might be stayed by drawing through it some small loop-holed drainage-tubes, and allowing the carbolized fluid freely to percolate through these.

The strength of the solution of carbolic acid which I have employed has been about one part of the acid to four or five of the solvent (oil of glycerine), and its efficacy, I would repeat, has appeared to be limited almost absolutely to those parts with which it could be brought into actual contact; and although it appears occasionally to have produced injurious effects when used in large quantity, yet I have kept a large sloughing and granulating surface for days together constantly covered with the carbolised oil, without any harm arising, although the urine soon presented the peculiar blackish colour which has been several times observed during its employment.

I will only further add that in looking over the various methods of treatment which have from time to time found favour with the profession, there seems to have been a constant under-current of feeling in favour of such remedies as have a more or less caustic or antiseptic (? parasiticide)

influence. Terebinthinates, resinous applications, caustic potash, and several other caustics have been held by various competent authorities in high esteem, and their partial usefulness would seem to fortify the theory of the vital, the living nature of the disease—a theory which I think is greatly supported by the decided influence upon it of carbolic acid, a substance so well known to possess a special power of preventing the increase and development of low forms of life and cell-growth.—*Lancet.*

Cremation :—

The subject of cremation is again taken up by Sir Henry Thompson in the pages of the *Contemporary Review.* In this article he replies to various criticisms that have appeared in different journals, and gives a detailed account of the process he would suggest as most appropriate for the object in view. Sir Henry states, and it is certainly a somewhat remarkable fact, that the only formal opposition to cremation has been made by the present medical Inspector of Burials for England and Wales, Mr. Holland ; and in reply to the observations of this gentleman, Sir Henry refers to the evidence obtained by Drs. Southwood Smith, Waller Lewis, and others, in regard to the large amount of gases produced in the decomposition of the body, and the impregnation of soil, water, and air to a considerable distance. Such impregnation by the dead, and consequent danger to the living, cannot, we presume, be questioned for a moment, and is fully borne out by the statements of Mr. Bowie and the general experience of the profession. We must also fully endorse Sir Henry's remarks in regard to the elimination of ammonia, or at least of carbonate of ammonia, from decomposing animal tissues, and are at a loss to understand how any doubt can exist about the point. Turning to the second part of Sir Henry Thompson's essay, he remarks that he has personally superintended the burning of three bodies of animals, one weighing 47 lb., another 140

lb., and a third no less the 227 lb., with the most satisfactory results, the residue in the first instance weighing only 1¾ lb., and in the second 4 lb. In the last case the body was placed in one of Dr. Siemen's furnaces, the interior of which was heated to about 2000° F. The inner surface of the cylinder, which was about 7 ft. long by 5 or 6 ft. in diameter, was smooth, almost polished, and no solid matter but that of the body was introduced into it. The gases, which were at first abundantly given off, passed through a highly-heated chamber, among thousands of interstices made by intersecting firebricks laid throughout the entire chamber, lattice fashion, in order to minutely divide and delay the current, and to expose it to an immense area of heated surface. By this means they were rapidly oxidised, and not a particle of smoke issued by the chimney. No second furnace was therefore in this instance requisite, though, under certain circumstances, the products of combustion might be transmitted through another, and the fumes from this into a third and so on, each being made available for the combustion of one body. The process was completed in fifty-five minutes, and the ashes, which weighed about 5 lb., were removed with ease. Sir Henry meets the objection that has been raised to the practice of cremation, that it will lead to an increase of crimes of poisoning, by suggesting that a public verificator of the cause might be appointed, whose duty it should be to ascertain and certify the cause of death, whilst the stomach might be kept for some years. In reference to the expense, he still thinks it would be far within the present cost of a funeral As regards ourselves, we have already expressed our opinion that it is an eminently satisfactory mode of disposing of the dead —safe, speedy, wholesome, and economical; but we rather doubt whether ancient custom and popular prejudice can be so easily overcome and altered as Sir Henry Thompson appears to believe.—*Lancet.*

Obstetric Memoranda.—Treatment of Post Partum Hæmorrhage. By ALFRED GODRICH, M.A., M.R.C.S., &c.

The means of suppressing *post partum* hæmorrhage have been most ably discussed in the pages of the *Journal;* but I think scarcely enough attention has been paid to the means for its prevention.

Although I never had a fatal case, yet, in my early practice, it was my lot to meet with two very alarming ones. Subsequently, I noticed that, although there might be no large loss of blood, the sudden evacuation of the contents of the uterus, especially when there was a large quantity of liquor amnii, was often followed by death-like faintness. Even in tapping for ascites, it is always laid down as a rule to apply a bandage, which is gradually tightened as the fluid escapes, to assist the abdominal muscles, and to compensate in some measure for the loss of pressure sustained by the large vessels and viscera of the abdomen. If, then, such precautions are necessary in a case where the evacuation of the fluid is entirely under control, why should not similar precautions be taken in the emptying of the uterus? Most practitioners, no doubt, apply a binder, but not till the uterus has emptied itself, and the large blood-vessels of the abdomen have become turgid with blood from want of that support to which they have for months been accustomed. I was led by such considerations to adopt the plan of using the binder, not only after, but during labour; and, as since then, I have not had a single case of *post partum* hæmorrhage, or even of that sudden exhaustion which I had before so often witnessed, I am induced to describe the plan which I adopt uniformly in all labours, and which I have found successful.

I select some stout material, wide enough when doubled to reach from the fundus of the uterus to two or three inches below the crista ilii. This, as soon as the woman is confined to her bed, is pinned as tightly round her as can be borne, thus giving support to the abdominal muscles, and keeping the child in the axis of the pelvis. As soon as true expulsive pains commence, the binder is unpinned, and the upper fold given into the hands of the nurse, with the directions that, during each pain, she should draw it as smoothly and tightly as possible across the patient's abdomen. There is no fear of the lower fold slipping, as it is kept in position by the weight of the woman's body, and

therefore should be left quite alone. As soon as the head begins to emerge beneath the pubes, the pressure should be continuous and as strong as possible, and never relaxed for a single instant till after the child is born and the placenta expelled, when the binder should be pinned as tightly as possible by the surgeon himself, and not left, as is too often done, to the nurse.

I venture to think that, if some such uniform plan were adopted in all cases of labour, we should hear much less of *post partum* hæmorrhage, and be often spared the using the many hazardous, if not dangerous, expedients suggested for its suppression.—*British Medical Journal.*

Clinical Memoranda.—Movable Kidney.

Mrs. H., aged 27, of good figure, and the mother of two healthy children, the youngest six months old, consulted me on March 18th. She strained herself in trying to open a window about a month ago. Since then she has had pain, more or less, in the abdomen, below the right costal margin. She thought she felt a swelling. When young, she was subject "violent attacks of pain in the bowels." I found a hard tumour reaching from the umbilicus, upwards and outwards, nearly to the ends of the last two right ribs. The fingers could easily be passed between the costal margin and the tumour. The mass, slightly painful when handled, felt exactly like the kidney, the convex border of which was the lower edge of the swelling. The tumour, which was covered by intestine, moved downwards about an inch and a half on inspiration, and upwards on expiration. It was also freely movable in all directions by the hand. Beyond the fact that the urine had been scanty, and loaded with urates, since the strain, there was no other symptom. My diagnosis was movable kidney, and my advice was, that the patient should wear an abdominal support, with a pad to keep the kidney in its place as much as possible. I may add, the bowels were thoroughly evacuated before my decision.

THOMAS COLE, M.D., Lond., M.R.C.P., Bath.

—*British Medical Journal.*

CANADA

Medical and Surgical Journal.

MONTREAL, MAY, 1874.

A CENTRAL BUREAU.

We notice with great pleasure the introduction into the Dominion House of Commons, of a motion by Dr. Brouse to provide for preliminary steps being taken for the establishment of a central controlling body for the whole Dominion with regard to Sanitary matters. The idea is, to begin by forming a bureau of Sanitary statistics in immediate connection with some one of the Governmental Departments, and under the control of such departmental chief. The gentleman who brought the matter before the House, urged in very strong terms the desirability of the immediate institution of such a body as a permanent part of our political machinery, adducing amongst other arguments the undoubtedly favorable impression which would be created abroad by the publication of Canadian vital statistics, and the good which must necessarily ensue from our being able to compare correct mortality returns from different parts of the country, with the view to investigate and correct the causes giving rise to any excessive or unusual degree at any particular place. It was also urged that such a Bureau would be of great service in suggesting to the educational department the adoption of regular instruction in the important elements of Sanitary science in all our public schools. Of course it is understood that for the purpose of obtaining such statistics the general

Board or Bureau would require to be assisted by Local Boards in every part of the country, the manner of appointment of which would be fixed by subsequent legislation: and it is here that we arrive at the practical part of the whole thing. It is high time that we, as a country, should show ourselves sufficiently civilized to legislate in a rational manner for the preservation of the health of the community at large. We think that no one will dispute with us the fact that the feeble attempt hitherto made, and now making by the present civic organization for the regulation of hygienic measures in this city have resulted in miserable failure. The most entire dissatisfaction, with a want of confidence in the present so-called health office is universally felt, and we do not believe that matters are a bit better in other cities of this Dominion ; and every one who knows anything about the matter will say the sooner it is done away with the better. What every medical man, and every intelligent citizen has a right to know is what is being done by those charged with the all-important matter of looking after the health of the population of whom he is one, and whether such work is being done well. Such information can never be had, nor the results of hygienic management made known until they are officially laid before an authorized public Bureau. It would be a work of supererogation to argue further concerning the importance of immediately establishing a Sanitary Board, because it was universally admitted by those who spoke upon Dr. Brouse's motion for a committee. The only question raised was the ability of the House of Commons to deal at once with the matter, it being suggested that possibly this would be trenching upon the functions of the Local Legislatures. As the matter stands at present, however, the Premier has promised that the matter shall not be lost sight of, but the jurisdiction of the House shall be investigated during the Parliamentary recess, and if possible (of which we have but little doubt) a bill for the establishment of a Central Bureau will be brought in.

We should all thank Dr. Brouse for having brought the subject forward and placed it in a fair way to receive the attention it deserves. It is a measure which was long ago advocated by this Journal, but which until the present has been sadly neglected by our Legislative men. The Medical profession is well and ably represented in the Commons, and we trust that they will at the next session of Parliament push this matter to a successful issue, and that before many years we shall be able to point to the successful workings of our Sanitary System as a proof of the advanced civilization of our country.

ANIMAL VACCINE.

When Jenner published the results of his observations on vaccination at the commencement of this century, he expressed a belief that it was an absolute and complete protection against small-pox, or at least as much so as small-pox itself. That a person who had been efficiently vaccinated was not more liable to contract small-pox than an individual who had gone through the disease naturally or by inoculation.

These views have long since been proved correct and have been corroborated not only by statistics, but by the experience of the most eminent writers on this subject. In the report of Mr. Simon to the British House of Commons in 1851, that gentleman states that "if vaccination were universally performed in the best known manner, deaths by small-pox would be amongst the rarest entries in the register. This is as much as can be said in favour of vaccination as it cannot be regarded as a greater preventive than the disease itself; secondary small-pox is well known to occur and has been observed in some rare cases, to be confluent, and occasionally proves fatal. In Marseilles during the epidemic of 1828, 2000 cases of small-pox occurred. Twenty

persons had the disease for a second time, and of these four died. In the year 1860 we had two cases of secondary small-pox under our professional charge, and one of them died during the secondary stage of fever. It is stated in Reynolds system of medicine on the authority of Dr. Seaton, that "the present average death rate from small-"pox is scarcely, in any European country, one tenth part "what it was prior to the introduction of vaccination, and in "those countries in which vaccination has been most care-"fully carried out it is much less than one tenth part of what "it was at the end of the last century." This ought to be evidence sufficient for any reasonable person. Some years ago the subject of the communicability of syphilis and other contagious diseases by vaccination through the use of humanized matter engaged the attention of the profession and the public, which gave rise to a systematic denunciation on the part of some fanatics against vaccination. It was condemned as worse than useless, as it did not afford an absolute protection and that the hazard of spreading a disease like syphilis was a greater evil than small-pox. The protective influence of vaccination efficiently performed has been fully proved, but again the possibility of communicating syphilis by the use of impure humanized vaccine matter rests on high authority and cannot be gainsayed. These facts led to a series of experiments conducted by M. Depaul under the auspices of the Academy of Medicine, Paris, who, in his published report arrived at the following conclusions; that the transmission of cow-pox from heifer to heifer could be obtained without difficulty; that the progress of the eruption after inoculation was more rapid in the heifer than in man. The pimple appeared on the third day and commenced to suppurate on the seventh. This was the result observed in healthy animals, very little constitutional disturbance occurred; occasionally diarrhœa, with slight fever was noticed during the first few days, but never to any considerable extent, and in the majority of cases nothing

was observed. If the heifer was out of health, the vaccination failed altogether, or was slow in being developed. Depaul employed matter from Beaugency, and also from Naples, and from a series of experiments he arrived at the conclusion that the bovine species were incapable of being inoculated with syphilis. It was noticed that matter taken from a healthy heifer at the proper period, succeeded quite as well as the humanized vaccine matter. That the employment of animal vaccine matter appeared to be more marked in its effects, the re-action was greater at the period of suppuration. That the pustule is more voluminous, sometimes irregular as to form, and unequally developed, and sometimes the inoculation of a single point would give two, three or four pustules in the immediate vicinity. This latter circumstance, adds M. Depaul, is occasionally seen in the inoculation with humanized vaccine matter, but it is a rare occurrence. Another circumstance noticed in this report which is worthy of record, is that occasionally the eruption after the vaccination will be delayed from the ninth to the twelfth day, and if a second inoculation has been in the mean time practised, all the pustules will become developed and run their course.

We have been induced to draw attention to this important subject, and to epitomise M. Depaul's report, because the subject is not generally understood, and also because the quality of vaccine matter in general use amongst us in Canada, is far from being good or satisfactory in its results. There can be no reason why in our country districts, where healthy heifers are always attainable, the local practitioner should not adopt the practice of having at hand fresh and reliable vaccine matter, which if carefully protected from the atmosphere has been found effectual several months after being collected. But failing to procure the matter from this source, which requires only a little attention, we would direct our readers to the advertisement which appears elsewhere of Dr. Henry A. Martin & Son, of Boston Highlands, Mass.

These gentlemen fully alive to the importance of this subject commenced their vaccine establishment in the year 1870, and since that time have supplied large quantities of animal vaccine virus. From a private letter we learn that during the year ending 31st March, 1874, upwards of 450,000 points of vaccine virus have been distributed throughout the United States and Canada—This ought to be sufficient evidence of its reliability. Besides ivory points well armed, the Messrs. Martin offer to supply crusts, and tubes filled with fresh lymph.—

UNIVERSITY OF BISHOPS COLLEGE.

LENNOXVILLE.

The annual convocation of Bishops College for conferring degrees in Medicine and Surgery was held at the College Buildings Lennoxville, on Thursday 9th April ult. There were present the Lord Bishop of Quebec. Mr. Chancellor Hale and members of the Faculties in Arts, Divinity and Medicine.

The Dean of the Faculty of Medicine, Aaron H. David M.D., D.C.L., made the following announcements.

In the Botany and Zoology examinations six students passed viz., Messrs. Lane, Davis, Rose, Lemieux, Gravely and Shee, the names being placed in order of merit.

The following gentlemen passed their primary examination, their names being given in order of merit. Messrs. D. A. Hart, J. Lemieux, E. Rose, P. A. Shee, J. A. Pigeon, Victor J. A. Venner, Wm. H. Hunter, D. A. Hart, J. Lemieux, P. A. Shee, G. Rose, Chas. Lafontaine, J. Eneas, E. A. Duclos, J. McKay, and Valmore St. Germain.

The names of the following gentlemen were presented as worthy of honorable mention, Messrs. Victor J. A. Venner, Wm. H. Hunter, D. A. Hart. and Israel Lemieux.

Dr. Hart delivered the valedictory address on the part of the graduating class and Dr. Leprohon addressed the graduates on behalf of the Faculty.

MONTREAL GENERAL HOSPITAL.

Dr. T. G. Roddick has resigned the House Surgeoncy of this Institution to enter upon private practice in the city. This responsible office has been held by this gentleman for the past two years, and we know that during the whole period he has enjoyed the most entire confidence both of Governors and Medical Board. We are quite sure that the ability and skill evinced by Dr. Roddick whilst medical head of our most important charity bear testimony to the possession of such talents as are certain to enable him to be successful in his future career. We, along with all his friends, express our warmest wishes, that every prosperity may attend him.

The vacancy thus made has been filled by the nomination of Dr. C. J. H. Chipman, formerly Assistant House Surgeon, to the more advanced post, and by the promotion of Dr. James Cameron, formerly House Apothecary, to the office of Assistant House Surgeon. Both these appointments will give much satisfaction, and we beg to congratulate these gentlemen upon having obtained such deserved recognition of the faithful performance of their duties.

The Apothecaryship has not yet been filled, but we expect to be able to make the announcement of the successful candidate in our next number.

CANADA
MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS.

A Case of Cystic Degeneration of the right kidney; with Fungoid growth in the bladder.—Obstinate Hæmaturia.—Death. By ARTHUR A. BROWNE, B.A., M.D.

J. A., aged 62 years, had suffered from intermittent attacks of Hæmaturia for a considerable time when he came under the care of Dr. Fenwick last summer. He had been previously attended by Dr. G. W. Campbell, with whom Dr. Fenwick had a consultation on the case soon afterwards. In July last he came to Dr. Fenwick's house, about 9 o'clock, one evening, to have his urine drawn off, as he could not make water.

Dr. F., passed a large-sized catheter, without difficulty, and drew off a large amount of urine deeply tinged with blood. This attack of hæmaturia subsided under the Fld. Ext. Ergot, and iron, which was afterwards changed to small doses of turpentine, which he had before taken on Dr. Campbell's prescription, and which he maintained did him more good than anything. His urine was examined about this time, as soon as it became free from blood, and it was found to contain no albumen or tube casts, but there were present a few cells, resembling pus cells, a large quantity of granular matter, with abundance of phosphates, and a few crystals of the oxalate of lime. The crystals of the oxalate were very small in size. The amount of urine passed was about normal daily. This attack of hæmaturia subsided almost completely, but was followed by another, which came

on in the month of October. This also gradually improved, and he first came under my care during the illness of Dr. Fenwick, in December, 1873. At this time he was losing a very small amount of blood, and seemed comparatively well. His appetite and spirits were good, and he held to the turpentine in which his faith seemed to increase. At this time paroxysmal pains in the back and loins, and in the left leg, especially in the thigh and calf,—from which he had suffered from the first,—appeared to become aggravated and he complained very much of their disturbing his rest at night. He was ordered frictions with stimulating and anodyne liniments, but they seemed to do him no good. Being an old sailor, he prescribed hot oakum as a local application. This, warmed on the stove, and applied to the painful part, seemed to relieve him more than anything—and being his own idea, it was most faithfully carried out. On the 18th of January he sent for me, in the evening, as he could not rest from the pain which he was suffering.—About this time he began to lose more blood, but not in any very large quantity, and he complained that the Ergot which he was now taking, increased his trouble. He now began to suffer from an incessant desire to make water, and he complained that between the pain he suffered, and having to get up so frequently to pass water, that he was fairly worn out.

About the first week in February the bleeding came on again and was very free, large worm-like clots being passed, with considerable pain and straining. The constant desire to make water still continued, and now there was a constant dribbling which annoyed him extremely. On the 13th of February Dr. Craik kindly saw him, and prescribed Gallic acid gr. v, every hour, and as dry a diet as possible. From this time Dr. Craik saw him daily, and he continued to improve steadily. After this, all went on well, until the evening of the 3rd of March, when he was found about 9 o'clock, lying insensible on his bed. Soon after this he had a convulsive attack, and Dr. Craik was hurriedly summoned.

He sent for me soon after, and on my arrival, the patient was lying insensible on his bed, his face pale, pupils moderately dilated, and sluggish, and his breathing stertorous. In a few minutes he had a paroxysm, in which he tried to raise himself up, and in which his head and right arm worked convulsively. He had another fit in about an hour, and after that, two more, and at 1.15, a.m., of the 4th of March, he died.

Post-mortem.—This was kindly performed by Dr. Roddick, 15 hours after death. The body was well nourished, and the muscular development was very good, especially when it is remembered that he had been losing blood almost constantly for the last few weeks of his life, besides the severe attacks of hæmaturia, from which he had suffered, during the previous months. The kidneys and bladder only, were examined.

The right kidney was found to be much distended, and on cutting into it, a large quantity of turbid urine escaped. The secreting substance of the organ was much diminished in thickness, and what was left of it contained about 7 or 8 cysts, whose size varied, the largest being about the size of a large marble, and the smallest about the size of a small pea. The contents of these cysts consisted of a yellowish opaque fluid, and their walls were thick and glistening. At one end of the kidney was a solid deposit, of a whitish-yellow colour, about the size of a pigeon's egg,

The right ureter was distended with fluid, and was about the thickness of the finger of an ordinary man. On examination, it was found to be obstructed at its entrance into the bladder, and the narrowing of its calibre at that point was due to the thickening of the coats of that organ. The obstruction was not complete, however, and the urine could be forced through it by using a little pressure from above.

The left kidney was comparatively healthy, although here also, the secreting substance had undergone some absorption. The left ureter was pervious throughout its whole length.

The bladder was about half full of turbid, bloody urine, and several fibrinous clots were found in it, most of which were gradually becoming disintegrated. The coats of the bladder were much thickened, especially at the base, behind. This thickening was so great at the orifice of the right ureter as to have almost completely stopped the flow of urine through it. On the left side, close to the neck of the bladder, there was a fringe-like fungoid growth, about two inches long. It was very vascular, and was probably the chief source of the hæmorrhage.

The prostate gland was much enlarged.

A Case of Spina Bifida. By GEORGE A. BAYNES, M.D., Montreal.

A short time ago, I was called in to see a child which had just been delivered by a midwife. On my arrival, I found it dead, but the parents and friends had stated that it lived some two hours. In appearance the child was well made, and everything was natural, with the exception that the spine at the junction of the lumbar and sacral vertebræ lacked the spinous processes and laminæ, causing a large opening, from which protruded (2) two inches of the spinal cord, including the cauda equina.

The tumor burst of itself, during a convulsion, soon after birth ; it was very thin, inflammation, seemingly, having been present. I endeavored to take away the specimen, but the parents would not hear of it, although they allowed me to cut down and examine it. This is to be regretted as it was a very perfect case, and would have made a beautiful preparation.

Hydrorachitis is dropsy of the membranes of the Spinal Medulla, and rarely if ever takes place without Spina Bifida, but it is possible for either to be present separately. The lack of the spinous processes of one or more vertebræ, with the vertebral arches inclined toward one another, so form-

ing only a very small space between them, or the entire absence of the spinous processes and laminæ, or their wide separation and consequent removal of support to the membranes of the cord, enables the membranes to protrude, and so form a tumor varying in size, according to the amount of serous fluid which is secreted, which under the circumstances is generally in excess. The disease generally comes on in the latter weeks of fœtation, but may not show itself until a few weeks after birth, and then only be of the size of a pea, but as the disorder increases, the tumor enlarges, sometimes growing to the size of a fœtal head, but generally not becoming larger than an orange. The tumor is either soft, flabby and fluctuating, or tense, elastic and shining. You can sometimes by gentle pressure reduce the size of the tumor but it soon fills again upon removing the pressure. You may have a single cyst, or it may be multilocular, and it contains a fluid resembling synovia, or sometimes pus, but generally the contained fluid is thin and limpid, saline in taste, and uncoagulable.

The spinal cord and nerves are variously affected by the lesion. The cord may be softened or hardened, sometimes diminished in size; the nerves are always displaced, and sometimes dragged out of the canal as it was in the case I had myself, in which they exhibited a most beautiful plexiform arrangement.

Prescott Hewett says: "The connection which generally "exists between the cord or the nerves and the walls of the "sac, is a point of the utmost importance. Some cases are "related by various authors, in which neither the nerves nor "the cord had any connection with the sac, these parts fol- "lowed their usual course down the spinal canal, but in by "far the greater number of cases that have been placed "upon record, the nerves presented some kind of connec- "tion with the sac. Of 20 preparations of Spina Bifida "occupying the lumbo-sacral region, which I have examined "in various collections, I have fonnd but *one* in which the "nerves were not connected with the sac. But if the tumor

"occupies partly the lumbar and partly the sacral region, "then generally the cord itself and its nerves will be found "naturally connected with the sac."

M. Cruveilhier believes, from his dissections, that this connection is constant.

Symptoms.—If the child survive any time, the symptoms vary according to the extent of the lesion, and if hydrocephalic.

Paralysis usually exists of the parts supplied with nerves below the seat of lesion, sphincters, &c. If the cyst is inflamed or undue pressure is exercised convulsions are sure to come on, and then it may burst, or it may suppurate and turn to an abscess.

Prognosis.—Before birth fœtal health is not injured. But few children survive more than five or six months, death resulting as above stated either by convulsions or rupture of the sac. A few instances are on record in which the patient, however, lived some time; in one case, life was preserved to the 55th year; and on another occasion, in a young female, to 30 years, but she was anaemic, and frightfully deformed by lateral curvature. If the lesion be in the cervical region, it is more fatal than in the dorsal or lumbar or sacral.

Hana reports à case of rupture of the sac during measles, followed by a complete recovery, but a spontaneous cure similar to Hana's, is a very rare occurrence.

Treatment.—Pressure, puncture, ligature and injection have all been successively tried, and been combined one with another. Sir. A. Cooper reports cases treated by pressure alone, and by pressure and puncture combined, which have proved successful, so also has Abernethy. The smaller the tumor the more likely you are to have a favorable result, but if it has a broad base with a large cleft, or if it is of an immense size, the only thing that we can do is as far as possible to reduce pressure on the sac, and then to apply support, with the view of preventing ulceration and rupture.

A case occured under the care of the late Dr. Fowler of

Melbourne, upon which he operated at a few weeks old, by puncture alone. Upon withdrawing the fluid he described every symptom of dissolution as taking place. The pupils became dilated, the whole appearance denoted utter prostration, and nothing but the active employment of stimulants restored animation. The sac was quite reduced, but gradually filled again ; he lived to the age of 21 years. He had paralysis below the seat of the lesion, passing all his evacuations involuntarily. The tumor was situated in the dorsal region. I think if pressure had been used, after the puncture, there would have been every chance of a happy termination to the case.

As for ligature, it is almost certain to prove fatal for the following reason, that in 99 per cent the cord or nerve filaments are connected with the sac. Injection with iodine was introduced by Dr. Brainard in 1848, and has been in use to some extent since, but not with the favorable results that Dr. B. warranted. He directs the operation to be performed in the following manner :—

1. To draw off no more serum than the quantity of fluid injected.

2. To make the puncture in the sound skin, subcutaneously by the side of the tumor.

3. In evacuating the contents of the sac, if symptoms of irritation supervene, to re-fill it with distilled water. The patient should be on his side or face during the operation, and if the weather is warm, use evaporating lotions to the part and head. As soon as the tumor is flaccid support by pressure, and continue for weeks after the cure is complete; and lastly, inject as often as necessary, but be careful to see that all irritation has subsided from the previous operation.

HOSPITAL REPORTS.

MONTREAL GENERAL HOSPITAL.

Case of Tuberculous Disease of the Epididymis—Tuberculous Abscess of Kidney—Effusion into the Ventricles. Coma.— Death. — Autopsy. Under the care of Dr. REDDY. Reported by Dr. J. C. CAMERON, Assistant Surgeon, Montreal General Hospital.

E. M., aged 26, a strong muscular vigorous man, was admitted to the Montreal General Hospital on the 6th of April, 1874, suffering from swelled testicle. Upon examination the Epididymis of the right testicle was found to be hard, swollen, and painful. No history of recent venereal disease nor of Syphilis could be elicited, though he admitted having suffered from Gonorrhœa, some nine years ago. He has always been a healthy man, accustomed to hard work. Some days ago while walking along the street, he slipped and gave his back a violent wrench in recovering his balance; ever since then, he has had severe pain in the back and right side, and right testicle. He never had any pain or swelling in the testicle previously, although a hard lump had been noticed for some time. Perfect rest was ordered, the testicle was suitably supported, and Tinct. Hyosciam, M. xxv, was administered every fourth hour. The testicle was strapped on the 10th, and again on the 12th, with the effect of reducing its size and making it much less painful; Chloral in twenty grain doses at bed time, was ordered, as he had slept but little for two nights. On the 12th he complained of headache, which was soon followed by nausea and vomiting; these symptoms were attributed to biliousness, especially as he said that he had been subject to such attacks frequently. A blue pill at night followed by a seidlitz powder in the morning, was ordered. On the 13th he felt somewhat better, his bowels having been freely moved, still the vomiting continued at longer intervals, and

the sleeplessness persisted. Twenty grains of chloral were given at bedtime, but without effect.

On the 14th, vomiting ceased, but the headache became more severe, the pain being chiefly supra-orbital. He seemed to be more flushed and feverish.

The following mixture was prescribed :

Potas. Chlor. 3i ; Acid Hydrochlor dil 3iij ; Aquæ ad oz. vj, oz. ss ter die. Four ounces of wine were ordered.

On the 15th, his manner was confused and uncertain ; he appeared dreamy and complained greatly of frontal headache ; no paralysis ; pupils quite normal ; dozing constantly. Temperature, 99 3-5. Pulse 56.°

16th.—Condition more dull and stupid. A low, muttering delirium existed, from which he could be roused by calling loudly to him. Mustard was applied to the back of the neck, with directions to apply a blister, should the dulness persist.

17th.—His condition being but little improved, a blister to the nape of the neck was ordered. Dr. Reddy gave it as his opinion that extensive effusion into the ventricles of the brain was rapidly occurring.

18th.—Rather more intelligent and bright, but still very unsatisfactory, urine dribbling away in bed. A catheter was passed to determine whether retention existed or not ; but only about four ounces were drawn off. This specimen was tested and found to contain 50 per cent. of albumen, while under the microscope pus cells and epithelial scales were found in abundance, but no casts. As his bowels had not been open since the 13th, a pill contsining Ol. Tiglii mj. calomel grs iij was administered, and the following mixture prescribed: Pot. Iod. 3i; Pot. Brom. 3ii ; Ext. Physostig, grs. iii. Syrup oz. i. ; Aquæ ad oz. vi ; oz. ss., every three hours.

19th.—Bowels opened freely once ; constant, low muttering delirium ; consciousness more impaired ; muscular twitchings : pulling at the penis ; knitting of the brows ;

busy movements of the hands, constantly slapping the abdomen or rubbing the brows; and stertorous breathing, were particularly noticeable.

20th.—Condition unimproved, but still no paralysis, stertorous breathing; jactitation; pupils inclined to dilate. Pulse 110. Two ounces of gin were substituted for the four ounces of wine, and the following mixture prescribed: Potas. Acet. 3ij; Tinct. Digital 3iii; Aquæ ad oz. vi, oz. ss 4 q. h. Hot bottles were applied to the feet, and a large poultice of mustard and linseed to the loins.

Towards evening, the delirium became wilder and more excited; consciousness and articulation were completely lost. Pupils equal but dilated; pulse 120.

21st.—8 a.m., delirium still continuing; pulse 120.

2 p.m.—Pupils widely dilated, the left a little more than the right. A specimen of urine was again tested, and found to contain about 30 per cent of albumen and pus in greater quantity than before. The back of the head was shaved, and a blister applied over the occipital region.

11 p.m.—Pulse 130, and faint: breathing hurried and noisy; pupils dilated; eyeballs insensible to light and touch.

22nd.—About 3.30 a.m, he died.

Autopsy 10 hours after death:

Heart—firmly contracted; quite normal,

Lungs—Hypostatic congestion; scattered miliary tubercle found in the pleura and in the upper lobes of both lungs; the apices were both puckered. No collections of recent tubercle could be discovered.

Spleen enlarged and softened.

Kidneys—Right, large and pale; pyramids quite obliterated. An abscess with raised edges, evidently tuberculous, involved the whole of the upper half.

Left, congested; pyramids faintly marked. No abscess or tubercle present. The external surfaces of both kidneys were puckered by old cicatrices.

Right Testicle—Epididymis—was large, swollen, and

covered with small yellow spots. When cut into, it was found to be filled with masses of cheesy tubercle.

Brain—Membranes—tense and sinuses congested.

Substance, rather pale and anæmic, but quite firm and hard.

Lateral Ventricles distended to their fullest limit with a a clear, transparent fluid. The effusion was evidently rapid and recent, as no softening of the brain substance could be detected.

Case of Syphilitic Disease of Larynx.—Urgent Dyspnœa.—Laryngotomy.—Recovery.—Under care of Dr. Ross. Reported by Mr. RICHARD MCDONNELL.

E. C., aged 21, was admitted on the 4th April, 1874, under Dr. Ross's care.

History.—Two years ago, she experienced a slight difficulty in speaking. This amounted to no more than an inconvenience, and received no attention whatever, until just before last Christmas, when she entered the Montreal General Hospital. At that time, the voice was very weak, and the breathing slightly labored. At the end of six weeks, being considerably improved, she returned to her daily employment, that of a servant. The malady, however, returning with increased vigor, she was again admitted.

The course of the disease was characterized by a total absence of pain in any part of the body, the larynx alone being but slightly tender on pressure. There has been considerable emaciation. Never any dysphagia. Regurgitation of fluids through the nostrils has taken place during the last three or four months. Night sweats have also occurred, especially during her previous stay in the hospital.

No family history of any kind can be ascertained, her parents having died while she was at an early age. States that she has never had primary syphilis, has always been in good health, and catamenia have been regular.

Present Condition.—The most prominent symptom is

the stridor, which accompanies both inspiration and expiration, and is so loud that it can be heard outside the ward. Voice weak, and very indistinct. On examination of the throat, the tonsils were found to be rather red, and remains of extensive ulceration existed in the upper and back part of the mouth, including the soft, and a considerable portion of the hard palate.

A sore was situated over the upper portion of the sternum, as large as a quarter-dollar, and covered with a hard crust. A probe passed into this, struck upon diseased bone. The inguinal glands were enlarged and indurated. An extensive superficial cicatrix covered the right elbow, having been caused, as the patient told us, by a burn. No syphilitic nodes existed on the long bones.

Slight cough, expectoration thick, glairy, and adherent to the vessel. Pulse 92, small and feeble. The right pupil dilated. This, the patient says, is its normal condition.—Appetite not very good.

April 4.—A laryngoscopic examination was attempted but without any definite result, the patient being very restless and gagging. Ordered steam inhalation.

April 6.—Voice slightly improved, prescribed:

R. Pot. Iod. 3ii.; Tr. Hyoscy. 3iv.; Aq. ad 6 oz. Tablespoonful terdie.

April 10th.—Not quite so much stridor. Examined with laryngoscope, and succeeded in getting a very satisfactory view of the interior. The parts above the vocal cords were not redder than is natural, but appeared thickened and corrugated, presenting, as it were, irregular roughnesses. No œdema of this region or other evidence of acute Laryngitis. Both vocal cords were extensively ulcerated, the line along each one consisting of a series of uneven jagged notches. During attempted phonation, it was seen that the cords approximated but very imperfectly.

Diagnosis.—As the result of this examination it was decided that the dyspnœa was the result of a grave and advancing ulcerative disease of the interior of the larynx.

That this was of a syphilitic nature was also inferred with almost certainty, from its peculiar nature, and from the other evidences already mentioned, although the existence of the primary disease was never admitted.

Ordered, to continue her Potass. Iodid mixture and steam inhalation, and to have the throat sprayed several times daily with a solution of Potass. Chlorat, 3ii to viii oz.

April 13.—The patient's condition this morning seemed very much worse. Countenance bluish. Breathing very laboured, much more whistling and stridulous than before. There was a pause between each act, and it appeared at the commencement of expiration, as if some obstacle impeded the egress of air. Dr. Ross stated that if the dyspnœa increased, he must have recourse to Tracheotomy.

3.30.—Dyspnœa increased. Face quite blue. Extremities cold, pulse, 124, small and irregular; intervals between inspiration and expiration becoming gradually more and more lengthened. Pupils dilated. Dr. Ross was sent for and arrived, in about 20 minutes. At that time the symptoms had increased to such a pitch that death was imminent. Pulse 130, flickering, very long intervals between the acts of respiration. She was immediately placed in position for the operation, with the head thrown back and the neck projected forwards by a pillow. Upon doing this vitality was at once suspended. Heart's action stopped, and she lost all sensibity. Dr. Ross, assisted by Dr. Roddick, the then House Surgeon, at once proceeded to Tracheotomy. An incision ¾ inch long was instantly made in the crico-thyroidean space, partially including the cricoid cartilege. A double canula was introduced and after artificial respiration had been brought into play, consciousness returned. The patient was then placed in a semi-recumbent position. Her face soon resumed its natural colour, and the pupils their natural size. The heart's action was rapid, and pulsation was visible in the superficial arteries. Expiration was accompanied by a snuffling sound, owing to the accumulation of mucus in the tube.

5, p.m.—Pulse, 128. Patient cheerful and comfortable Surface rather cold.

7 p.m.—Pulse a little stronger. At intervals of about ten minutes, she coughs up a glairy, tenacious mass of mucus, tinged with blood. This is only partially ejected from the orifice, the remainder requring to be removed with a feather from the canula.

April 14th.—Passed the night well, and is reported to have enjoyed good sleep. Face slightly flushed. Complains of thirst. Pulse 90, fuller and stronger. Expectoration much less bloody. Temperature is normal.

April 15.—Pulse, 88. Temperature, 99 3-5°. Little expectoration. Has passed a quiet night, with very little cough. Respiration extremely irregular; at one time numbering 36, at another 18 or 20.

April 16., 11 a.m.—Pulse 90; temperature 100 2-5°. Has not slept well. Slightly feverish. Tongue coated and tremulous.

9, p.m.—Pulse, 91; temperature, 100°. Complains of Rheumatic pains in the right shoulder, for which Linim Hosp. was given.

April 17.—Pulse, 106; temperature, 100 1-5°. Coughing a good deal. Wished to sit up, but was not allowed. The bowels not having been open since the operation, castor oil was administered.

April 19.—Complains of pain in the right acromion process, and over the acromial end of the clavicle, which parts are also found to be tender. Tr. Iod, was applied. The breast has been treated with carbolic acid wash, and is considerably improved.

April 23.—Her condition has undergone little alteration during this period. The pulse has averaged 88, and the temperature 99°.

May 18th.—Is allowed out to visit her friends. She can now speak with difficulty and effort by placing her finger over the orifice of the canula, but the resulting voice is, of course, extremely rough and squeaky. When the canula is blocked up she cannot breathe at all. Ordered:—

R. Pot. Iod. 3ii ; Syr. Fer. Iod. 3vi ; Aq. ad vi. oz. Tablespoonful ter die.

She will soon be discharged from the Hospital, but, it is thought, will always have to continue to wear the tube.

Case of Diffused Abscess, extending over and around the Right Shoulder.—Death.--Autopsy., under care of Dr. Ross.—Reported by Mr. RICHARD MACDONNELL.

Patrick Morgan, æt 40, was admitted to the Montreal General Hospital on the 1st May, 1864, and placed under the care of Dr. Ross.

A man of low stature, swarthy complexion,and wiry frame. His expression of countenance indicates a low caste of humanity,and the little of his history that can be ascertained, accords well with his outward appearance. His present occupation is that of a railway laborer, he having previously been in the army, and served in the cavalry during the Crimean war. Has been for seven years a resident in this country. His habits have always been irregular, hard drinking alternating with fits of total abstinence. Early in his military career, he contracted gonorrhœa, which was followed by a stricture. At the commencement of the disease, instruments were frequently passed ; but never during the last twenty years. Difficulty in passing water, without actual obstruction has, since that event, always existed. He denies ever having had syphilis, and indeed the sole indication of its pre-existence is an induration, with enlargement of the inguinal glands.

No family history of any disease can be obtained.

At an early age, he states, that he had typhus fever, and a few years ago a severe attack of ague. Never recollects having had Delirium Tremens.

About eight days ago he slept in wet clothes, in a barn, on the following morning awoke with a severe rigor, accompanied by intermittent, shooting pain—referred to the right

shoulder. The rigor is said to have lasted half that day. From this event up to the hour of his entry into the hospital no information of his doings can be ascertained. In fact, he cannot even remember where the barn was, why he slept there, or how he made his way to Montreal. States that he was not intoxicated at the time. The patient has a broken nose, and bears on his back scars caused by a flogging he received while a soldier.

Present Condition.—Much swelling exists all about the right shoulder, most prominent behind, over the spine of the scapula. The natural depressions above and below the clavicle are entirely obliterated, and the clavicle itself can, with very great difficulty be felt. The swelling is not circumscribed, and extends both behind and in front, full half way down the right side of the thorax. The parts are highly œdematous and readily pit on pressure. No distinct fluctuation can be felt. The surface of the tumour, with the exception of a small area under the middle of the clavicle, is not altered in colour. The right arm is very œdematous, measuring at the thickest part of the fore arm 2½ inches more than the same circumference on the right. The patient's general strength is very low. Without aid he is unable to sit up in bed. Complains of shooting pain in the affected shoulder, as well as of a benumbed sensation, down the right arm, extending to the tips of the fingers. Has had during the last two or three days great difficulty in making water. The urine is of a high colour. No albumen. The pulse is frequent (105), full and bounding. The temperature (at 3.30 p.m.) 105° F. Respirations 46. Tongue, dry and brown. Skin, hot and dry. Bowels, though hitherto regular, have not been opened for four days. Examined the heart, and found no organic disease. Castor oil was administered, and a linseed poultice over right shoulder. Was placed on milk diet, with 2 oz. wine extra, and the following mixture: R. Quiniæ Sulph. gr. xii; Tr. Ferri Mur. 3iii; Aquæ ad vi oz. To take one tablespoonful every four hours.

At 5 p.m. to-day (May 2nd), his general condition remained somewhat similar. Pulse 154 ; temperature 105 F. Respirations, 38.

May 3rd.—General condition worse.

10. a.m.—Although not actually shivering he complained of cold.

An exploratory incision was made over the infraspinous fossa of the scapula. A considerable quantity of blood and serum, but no pus, escaped from the wound. The pulse was extremely rapid, 160, small and weak.

Temperature 103 2-5 ; respiration, 32.

Died at 3 p.m.—No delirium preceded his death.

AUTOPSY—twenty-four hours after death.—Slight rigor mortis. General surface slightly discolored.

On reflecting the integuments, fascia, and pectoralis major, no matter was discovered ; but upon dissecting off the strong, deep fascia which covers in the vessels lying in the triangular space above the pectoralis minor muscle, the first traces of pus were exposed. In this situation it completely surrounded the axillary vessels, and certainly could hardly, with safety, have been reached during life. The matter was thick, rather viscid, yellow, and not unhealthy looking. From the point above mentioned it was traced beneath the clavicle, surrounding the subclavius muscle, and along the course of the subclavian artery, and also downwards for some distance along the axillary artery into the axilla beside the vessel and the nerves of the brachial plexus, the pressure upon which, doubtless, gave rise to the sensation experienced by the patient down the arm. A large quantity of pus, (about 3 oz.,) was found on the posterior surface of the thorax, lying between the serratus, magnus and the subscapularis, accompanying the latter to the surface of the shoulder-joint. The joint itself was natural. All the cellular tissue in the parts around the shoulder were greatly infiltrated with pus.

Thorax.—Right lung, with the exception of the base of the middle lobe, all was crepitant, and floated on water.

This portion was quite airless, and on section was found to be darkened and congested. Adhesions strong, and of old standing, connected the right lung to the pleura, and upper to the middle lobe.

Left Lung.—Whole lower lobe, and a small portion of the upper lobe collapsed. These organs had not been examined during life, owing to the great prostration of the patient.

Heart.—Externally several large white patches, covering a great part of its surface. All the valves healthy. Large *ante mortem* polypi were found in both cavities.

Kidneys.—Right Kidney very large, slightly anæmic, but in other respects, normal. Weight 7 oz.

Left Kidney in a state of extreme atrophy. Its capsule, intensely adherent, was firmly attached to the adjacent structures. Size, about that of two thumbs. Weight 2½ oz. The whole structure was disorganized, and its parts could with difficulty, be distinguished. The surface was anæmic and covered with irregularities, while its internal structure was riddled with cysts.

Two of the pyramids displayed a dark green discoloration.

Spleen.—Enlarged and indurated. Weight 13 oz.

Liver.— Normal.

Brain.—Normal.

Urinary Apparatus.—A tight stricture was found one inch long, and situated at a distance of an inch and a half from the neck of the bladder. The prostate gland was enlarged and in its structure a false passage existed about half an inch long.

The bladder was healthy, though it showed slight thickening. It contained a few ounces of urine.

This case is of some interest as being an example of the formation of an acute abscess in a very unusual situation. No cause beyond ordinary exposure could be ascertained for its production. The only point where there was redness and excess of superficial pitting was just beneath the clavicle, towards the shoulder, and probably, if the patient had

survived, the matter here could have been evacuated, but the dangerous proximity of the important vessels, and the possibility of their displacement deterred from any attempt at reaching it in that situation, and the result of the autopsy, sufficiently proved the wisdom of this caution.

Case of Typhoid Fever.—Remarkably high ante-mortem Temperature.—Autopsy.—Under care of Dr. Ross.—Reported by Dr. J. D. Cline, House Apothecary.

E. F., 29, was admitted to the Montreal General Hospital 11th May, under care of Dr. Ross. Has been in French Marines, and recently occupied in this city as waiter, was of intemperate habits, drinking principally strong liquors.

He relates that about twelve days ago he had a chill, followed by a stitch in the right side, slight cough and considerable fever. The cough was attended with very little expectoration. When admitted he complained only of weakness. Tongue coated; pulse 90; slight cough; no abnormal physical signs in chest; no spots found in abdomen, or elsewhere, nor tenderness in right iliac fossa.

13th. Pulse 80; Temperature, 100°. Slight cough; very little expectoration. Ordered R. Pot. Nit. gr. x., Tr. Hyoscyam 3 ss. every four hours. Diet, milk and beef-tea.

15th. Cough more frequent. Pulse and temperature in morning 100 and 101 2-5°; in the evening 100, and 103°. Respirations 28.

16th.—Morning; Pulse 110; temperature 106°. Evening pulse 100; temperature 105°.

Liq. Ammon. Acet. 3ij. was added to the mixture.

17th.—Bowels open twice since yesterday. Stools diffluent, and ochre-coloured. Slight iliac tenderness now perceptible. Has slept pretty well up to this time. Morning, pulse 100; temperature 103°. Evening, pulse 104; temperature 103 3-5°.

18th—Tongue thickly coated in centre, red at tip and edges. Quite moist stools of same character as before. Iliac tenderness not increased. Abdomen somewhat tympanitic. Slept last night with aid of Chloral Hydrate, gr. xx.

Was ordered in place of above mixture Ac. Mur. Dil. oz. ss. in aqua Oj, of which a wine-glassful was to be taken every two hours. Morning, pulse 104; temperature 103-3-5°. Evening, pulse 100; temperature 105°.

19th. Tongue redder at tip, and becoming drier. Patient is becoming stupid and drowsy; mutters in his sleep. Tongue very tremulous. Pulse weaker. Cough continues. Morning, pulse 104; temperature 104°. Evening, pulse 112; temperature 103 2-5°.

20th.—Condition much the same. Mental faculties very dull. Morning, pulse 106; temperature 104. Evening, pulse 108; temperature 103 1-5.

21st. Tremulousness and jactitation marked. Eyelids and muscles of face twitched. No motion from bowels to-day. A shade of dullness at right base. Perspired freely this evening. Morning, pulse 115; temperature 103 4-5°. respirations 44. Evening, pulse 120; temperature 104 2-5°; respirations 44.

22nd. Last night was delirious and very restless, and with difficulty kept in bed. Continues in same condition to-day. The pupils are slightly dilated equally; there is no strabismus nor paralysis, nor any symptom indicating lesion in the brain. Two motions from bowels to-day. Poultices have been applied over the abdomen since the 17th. Tr. Cinchon Co. oz. ss. was added to-day to the acid drink. Morning pulse, 118; temperature, 101 4-5°; respiration, 38. Evening pulse, 126; temperature, 102 2-5°; respiration 34.

23rd. To-day patient is quiet, but in a state of extreme prostration. There is *subsultus tendinum*, and twitching of eyelids and muscles of face; pulse is very frequent and weak; passes his water involuntarily. Was ordered

4 oz. of wine. One motion from bowels to-day. Morning pulse, 120; temperature, 103 2-5°; respiration, 42. Evening pulse, 130; temperature, 101 4-5°; respiration, 46.

24th. Comatose; can be roused only by loud tone of voice; is unable to articulate; his eyes are half closed; passes water unconsciously. His wine was increased to 6 oz. His evening temperature, at 11.40 p.m., was 109 1-5°. At this time he was perspiring profusely. Was ordered 2 oz. brandy, but died at 12.15 a.m.

AUTOPSY, thirty-six hours after death.

Brain.—Perfectly healthy.

Lungs.—Congested, especially the right lower lobe. Here, also, scattered lobules were collapsed, the lower edge completely so. There was slight puckering at the apices.

Heart and Liver.—Healthy.

Spleen.—Very much enlarged, congested and softened. Weight, 20 oz.

Kidneys.—Natural.

Intestines—The colon through its whole extent was very dark from congestion, and contained a large quantity of matter like coffee-grounds, mixed with clots of blood The mucous-membrane of this part of the intestines was uniformly and intensely congested. There were no ulcers in the colon. The ilium near the ileo-cœcal valve presented the characteristic appearances of this part in enteric fever. The solitary glands, for some distance up the intestine, were enlarged, so as to be quite visible, and grayish. There were three or four Peyer's patches very much congested and ulcerated, the structure of the glands being quite sloughy. One patch particularly, about 6 inches from the cœcum, had a very deep and well-defined ulcer, and presented a deeply congested appearance, even on the outside of the intestine.

REMARKS.—Several circumstances tended at times to obstruct the diagnosis of this case, Many of the usual

symptoms of typhoid fever were absent. There was at no time any gurgling in the right iliac fossa; at no time much tenderness or tympanitis of abdomen; no spots, and no active diarrhœa. Notwithstanding the quantity of blood found in the colon, no blood had ever appeared in the stools. The temperature did not follow the range which is considered typical of this fever. The remarkably high temperature, about half an hour before his death, 109 1-5°, after a temperature of 102 3-5° in the morning, is remarkable. It was observed by the physician in attendance that it was the highest thermometrical record he had ever seen. It corresponds with what has before been frequently noticed—viz., that a very sudden and very considerable rise in temperature takes place in several febrile affections a short time *ante-mortem*.

Darwinism tested by recent researches in language.

On Monday, May 11th, Dr. Bateman of Norwich delivered a very interesting lecture on this subject in Paris to a large Anglo-American and French audience. Sir John Cormock, who was in the chair, in a few remarks at the close of the lecture, amid the assenting applause of the meeting, said that he thought the lecturer had made good his anti-Darwinian position. Dr. Bateman chiefly insisted on the three following points. 1. Articulate speech is an *universal attribute* of man; all races have language and the capacity of acquiring it. In support of this proposition were cited the writings of Tylor, Lubbock, and Moffat the African traveller. 2. Language is a *distinctive attribute* of man; it consequently establishes the difference of kind between man and the lower animals, which Mr. Darwin is in search of. 3. Although physiologists—Gall, Broca, and others—have been for a long period trying to connect speech with some definite portion of the brain, they have hitherto failed; and, as science has failed to trace speech to a material centre—has failed to connect mind with matter—*speech constitutes a difference of kind between man and the lower animals.—The British Medical Journal*

Periscopic Department.

SURGERY.

Clinical Lectures Delivered in Middlesex Hospital. By John W. Hulke, F. R. S. On Cases of Strangulated Hernia.

Gentlemen,—No accidents are more deserving of your closest attention than strangulated ruptures, for it is scarcely an exaggeration to say that no two are alike in all their circumstances, and upon your prompt appreciation of these will mainly depend your patients' rescue from a condition which, when unrelieved by art, is so desperate, so nearly hopeless, that it well deserved the name our forefathers gave it—a "*miserere*." There have been lately in Broderipp ward two cases which it will not be unprofitable for us now to review.

The first is that of a muscular, healthy carpenter, aged 27, who was admitted into Broderipp ward at 4 a. m., October 14, 1873. The right side of his scrotum was distended by a very large, extremely tense, globular swelling, which below concealed the testis, and above was continuous with an oblong portion in the inguinal canal. When he coughed, no impulse was communicated from the belly to the scrotal tumour. It and the belly were very tender, and so painful that he writhed restlessly about in bed and begged for something to be done speedily to relieve his suffering. He frequently retched. His face was pale, and its expression anxious. His pulse was quick and small.

He had had a rupture for many years; it had sometimes come down, and until now he had always managed to replace it. Latterly he had worn a truss. The rupture had slipped down at midnight; he could not get it back; it directly became exceedingly painful. He began soon after to vomit, and felt very ill.

At five o'clock when I saw him, he was at once placed

under the influence of chloroform, and, when complete relaxation was obtained, the taxis was tried for a few minutes. Not being successful, without further loss of time the hernia was operated on under a carbolised spray. A cut, about three inches long was made in the long axis of the tumour, with its centre over the depression which marked off the scrotal swelling from that in the groin. When the external inguinal ring, where the seat of the strangulation was expected to be, had been notched, and some tight threads of fascia transversalis upon the outer surface of the sac had been cut, another attempt was made to reduce the contents. It failed, and the sac, which was very thin and transparent, was opened. A coil of dark purple intestine came clearly into view. The finger could be passed upwards through the internal ring without meeting any obstacle, yet still reduction was impracticable. The impediment now appeared to be in the scrotum; and on passing downwards, at about one inch from the lower angle of the wound, a sort of transverse diaphragm was found dividing the scrotal part of the sac into an upper and lower compartment, which communicated by a small circular aperture. When this had been notched, and a recent adhesion of the gut just above it, had been separated, several coils of small intestine, almost black, and spotted with many small hæmorrhages, were easily drawn out of the lower compartment and reduced. They were lying upon the testis. The wound was washed out with a watery solution of 1 per cent. of carbolic acid, closed with wire stitches, and dressed antiseptically. He was ordered one grain of opium at intervals, the length of which was to depend on pain. The wound healed almost wholly at once; a very slight, inodorous, sero-purulent discharge oozed for a few days from the upper angle. The bowels first acted on the 21st, and until then he was restricted to milk diet. At the end of the month he was convalescent.

The next case is that of a large, heavy brewers' drayman, aged 23, also lately in Broderipp ward. He had had a rupture since childhood, but he had never worn a truss.

At long intervals the rupture had occasionally slipped down, but until now it had always been reducible. At four p. m., whilst hurrying to catch a train he felt it pass into the scrotum; and he was directly seized with great pain, followed by sickness. His attempts to reduce the rupture failing, and his suffering becoming very great, at 7 p. m., he was brought to the Hospital. When I saw him (four hours after the accident) the right side of his scrotum was distended by a very tense rupture, about a span long, separated by a shallow groove, at the external abdominal ring from an upper portion filling the inguinal canal. The scrotal part did not receive any impulse from the belly when he coughed. The testis could be plainly felt at the bottom of the scrotum distinct from the rupture behind it. He was bent double with pain in the belly and rupture—the latter, too, was so tender that he could not bear it to be handled; and he was sick. We at once gave him chloroform, then tried the taxis for a few minutes, and not succeeding by it, operated.

When the external ring, where the strangulation was expected, had been notched, an attempt was again made to reduce the contents without opening the sac, but this could not be effected. The sac, as thin as tissue paper and quite transparent, was then opened. It contained a large piece of omentum slightly congested, and behind this several coils of dark purple small intestine. The obstacle to reduction was found to be a couple of tight fascial threads crossing the neck of the sac and blended with it; after their division the intestine and omentum were returned without difficulty. The sac also contained about two ounces of bloody serum. Antiseptic precautions were taken during the operation, and the wound was dressed antiseptically. It healed almost entirely at once; there was a slight suppuration only in one suture-track. The first stool was not passed until the fourteenth day, when, the belly being rather uneasy, a simple enema was given, which brought away many scybalæ. About a week later, when quite convalescent, he

had looseness, with tenesmus, caused by impaction of faeces in the rectum. It ceased on their removal, and a couple of days afterwards he returned to work.

These, gentlemen, are pattern cases of large, acutely strangulated ruptures in young muscular subjects. In the first patient recourse was had to herniotomy five hours, in the second four hours, after the accident. To some of you this will perhaps have appeared a hasty proceeding, and you would like to ask me why we did not give the taxis a longer trial and put the patient into a hot bath; why the effect of a full dose of opium and of ice upon the rupture was not tried before operating—measures which you have known successful in other cases. The reply is, that when unsuccessful these measures have entailed a loss of time which in acute cases is very perilous; and here the ruptures were so tense, presumably therefore the strangulation so tight, that the chance of their succeeding was almost *nil*. It is in the less acute strangulations, where a few hours' delay in operating does not much increase the danger, that they find their proper place. Experience has only strengthened my conviction that abuse of the taxis has contributed in no small degree to swell the mortality after operations on strangulated ruptures. I speak not merely of a misplaced confidence in it by which precious time is lost, during which the patient's condition drifts into constantly increased dangers, but of injuries inflicted by the use of force, unwarrantable in degree and faulty in direction. Two cases which I watched with intense interest made a lasting impression on my mind. I will briefly relate them as warnings to you.

A young widow, ruptured four years, wearing a badly fitting truss, had her rupture slip down and become strangulated. For three days her medical attendant assiduously persevered with the taxis. At last she was brought into a hospital. In her right groin was a large, tense, tender crural rupture. She complained of a dreadful screwing pain in the belly at the navel, and of great thirst, and she vomited a pale, coffee-coloured, fæcal-smelling fluid. The house-

surgeon put her into a hot bath and repeated the taxis, with the result that the contents of the rupture suddenly slipped up into the belly. She instantly cried out with excruciating pain above the pubis—she exclaimed that she thought her bladder had burst. Her face was pale, her features pinched and sunken; her pulse small, intermittent, weak, and so rapid that it could hardly be counted; and she retched with little intermission, bile-colored matters.

The sudden way in which the contents of the rupture went up into the belly, raised the suspicion that probably they might have slipped up through the crural opening still enclosed in the sack, and constricted by its neck (reduction *en bloc* or *en masse* as it was named by Claquet). It was ascertained by an exploratory operation that this mishap had not occurred. She died seventeen hours after the reduction of the rupture.

At the examination of her body the sac and the tissues around it were found in a nearly gangrenous condition. Six inches of the ileum were gangrenous, and in this part was a small hole through which fæces had run out into the peritoneal cavity. The pelvis contained about a pint and a half of a turbid, yellow, fæculent-smelling serum, and there were evidences of an intense general peritonitis. Had this woman's rupture been operated on early, instead of being repeatedly submitted to the taxis, she would probably have recovered; and even on the fourth day—by which time the contents had become gangrenous—had the taxis not been repeated, but herniotomy been done, and the sac opened, the gangrenous condition of the strangulated intestine would have been ascertained, a safe outlet for its contents might have been made, and recovery with an artificial anus been still possible. As it was, misuse of the taxis allowed the gut to become gangrenous, then burst it, and killed her.

Several years later I witnessed another case where I could not resist the conviction that the patient's death was directly due to violent manipulation. The rupture was umbilical, very large, of several years' formation, during which the

patient, a stout middle-aged woman, had been plagued with dragging pains, and with retching, which were relieved by simple domestic measures. At last strangulation occurred, and her condition growing desperate additional advice was obtained. Happening to go in, I saw the surgeon standing upon a stool bent over his patient, energetically kneading the rupture, with, as it seemed to me, a dangerous expenditure of force. She suddenly swooned, and in a few moments life was extinct. At the examination of her body, her stomach, much dilated and thinned, and partly drawn into the rupture and entangled in it by adherent omentum, was found burst; the rent was extensive, and the contents were diffused through the peritoneal cavity.

I have, also, several times found the skin red and ecchymosed and the cellular tissue so much more congested than nearer the sac, that I felt constrained to refer these disorders to external injuries, and not to any spread of inflammation from the rupture to the surface. The lesson which cases such as these and the two I have just related convey is that any handling of a strangulated rupture should be very gentle. The only justifiable taxis is a gentle, uniform, steady compression, combined with an equally gentle pushing in the direction of the channel through which the viscera have protruded from the belly. This, whilst far safer, is also much more efficient than the forcible jerky squeezing occasionally witnessed.

To return to our two cases. You will have remarked that they have several common features and one notable difference. Both patients were young muscular men; in both the local and also what are termed the "general" or "constitutional" symptoms were urgent; the nervous commotion, pain in belly, and sickness were great, and the morbid changes in the strangulated viscera were already very considerable, although so short a time as only four hours in one, and five hours in the other case, had elapsed. In the first rupture the intestine in the sac was even more excessively congested than in the second. Two circum-

stances conduced to this—first, the contraction of the inguinal ring consequent on the recent use of a truss; and next the existence of a double strangulation, one at the external abdominal ring, the other in the sac occasioned by the sharp edge of the circular partition which divided this into an upper and a lower compartment. You will recollect that the intestine in this compartment was even more congested and more spotted with extravasated blood than that in the upper space between this partition and the external ring. You will also have noticed that the intestine was directly in contact with the testis—in short, that the hernial sac was the tunica vaginalis testis (the obscuration of the testis by the rupture raised the suspicion of this before the operation),—the characteristic of the variety of rupture named "congenital," because conditioned by the persistent openness of the tube of peritoneum, which the testis draws after it in its passage from the loins into the scrotum in the eighth month of fœtal life, and which, soon after the testis has left the external ring, normally begins to be obliterated and converted into a solid fibrous band.

The partitions in the upper part of the sac, so frequent in congenital hernia (I have several times met with one, and more than once found two), probably have their origin in incomplete obliterations of the peritoneal tube. Their presence is an additional complication, and it may, perhaps, partly explain the much greater danger of strangulated congenital ruptures than of herniæ acquisitæ of similar bulk and at the same time of life—a circumstance so pointedly mentioned by Dieffenbach in his "Operative Chirurgie," a book I cannot too strongly recommend you to read.

In the second case the hernial sac was distinct. Formerly this would have been regarded as a *hernia acquisita*—one whose sac was a new bag of peritoneum pushed before them by the protruding viscera, but the early age at which the rupture first appeared, renders it very probable that it was really only a sub-variety of congenital hernia, in which the congenital peritoneal tube had been obliterated only just

above the testis, so separating its dilated testicular part (now the tunica vaginalis) from the tubular part above, which, remaining unclosed, admitted the intestine into it, and became its sac. In connection with this, I would refer you to Mr. Birkett's article on hernia in Holmes's "System of Surgery." The progress of both cases after the operation was all that could be desired. The symptoms of strangulation at once ceased, and those who saw only the calmness of the following day could scarcely realize the critical state which had so shortly preceded it. There was very slight febrile disturbance, and the wound healed almost wholly by first intention. How far this should be ascribed to the antiseptic precautions I cannot say, but I would lay great stress here, as everywhere in surgical operations, on the necessity of absolute cleanliness. To both patients opium was given, not in fixed doses and at stated times, but in quantity from half a grain to a grain, and at intervals entirely dependent on the existence and the degree of pain. This, which has been my practice many years, has afforded me very satisfactory results; it tranquillises, and it keeps the bowels quiet. In one of our two cases no stool was passed until a week, in the other till a fortnight had passed. This did not occasion us any anxiety, and the only inconvenience resulting from the prolonged inactivity of the bowels was a slight impaction of accumulated fæces in the rectum—an affair of very small importance. Do not take my remarks as a sanction to give opium necessarily in all cases, this would be a blamable want of discrimination. To some patients you would not need to give a single grain; to others you must give it boldly, but with judgment.—*Medical Times and Gazette.*

Clinical Lecture on Fever, delivered at St. Thomas's Hospital.

By Thomas B. Peacock, M.D., F.R.C.P., Senior Physician to the Hospital.

Gentlemen,—During the last few weeks several cases of fever have been under my care in this hospital upon which

I propose to offer some remarks. Of these cases, three were cases of typhus and five of typhoid. Two of the cases of typhoid occurred in a mother and child. The mother was twenty-nine years of age, and was admitted into the hospital on the 28th of October, being then stated to have been ill for two weeks, but out of health some time longer. She had symptoms of low fever, a high temperature (103·6°), and much bronchitis; and was greatly prostrated. There were a few small, round, livid, non-fading spots about the upper part of the thorax and the lower part of the neck. The spots had disappeared on the 4th of November, or on the seventh day after her admission; but the feverish symptoms did not readily subside. The temperature continued high, and the prostration was so persistent that she was not able to leave her bed before Christmas-day, or the fifty-eighth day from her admission into the hospital; and she was not presented before the 4th February, or the ninety-ninth day from admission. The case was very obscure; but it was thought most probable that it was a case of typhus, which had passed its acme before it was admitted; but if so, the commencement of convalescence was imperfectly marked, and the duration of the attack was very much prolonged. The protracted convalescence might, however, it was thought, be due to the severe bronchitis with which the attack was complicated, and to the patient having been for some time before the occurrence of the severe illness very much out of health. At the end of November, however, we heard, what had been before denied, that there were other members of the family ill at home; and Mr. Donkin, the house-physician, went down to Greenwich, where the patient resided, and found one child convalescent from some sort of fever; and another, eight years of age, seriously ill. The child was removed to the hospital on the 28th of November, the report then being that it had been ailing for about a month, but seriously ill for two weeks. The child had symptoms of active fever, a temperature of 104°, and severe bronchitis. There was a copious

eruption on the trunk, very similar in appearance to that which had been observed on the mother. The child became much prostrated, and made a very gradual and slow recovery. She was not able to leave her bed before the 6th of January, or the thirty-ninth day from the period of admission; and was only presented on the 4th of February, or the sixty-eighth day from her admission into the hospital. There could be no doubt that the child's case was one of typhus and that confirmed the correctness of the diagnosis in the case of the mother.

In the third case of typhus the patient was a boy, thirteen years of age, admitted on Jan. 1st. At that time he was stated to have been ill eleven days. There was a copious eruption of livid spots on the skin and symptoms of high fever, the temperature being 104·6°. The spots disappeared in two or three days, and on Jan. 8th the temperature fell to 98·6°, and from this time he made a rapid recovery, being able to leave his bed on the 13th. He was discharged on the 27th, or the thirty-eighth day from the stated period of the commencement of the symptoms. In this case the nature of the disease was quite clear, and the case followed the course which it generally does in children. The diagnosis was further confirmed by the admission a few days after of a brother of the same patient, also presenting symptoms of typhus.

The cases of typhoid to which I refer were five in number. Of these, the first was that of a boy, aged twelve, admitted on the 4th of October, having been then ill for two weeks, but out of health for two or three months before. He had diarrhœa before he waa admitted, but was not so seriously ill as to be confined to bed. On the day of admission he had a high temperature 103·7°, and was considerably prostrated; the diarrhœa continued, and the evacuations were passed in bed. The symptoms of fever were severe and protracted, the diarrhœa very persistent. He was constantly delirious, and subsequently became very torpid and difficult to arouse. There were never any

spots upon the skin. The attack was very prolonged, so that the convalescence was not established before the 16th of December, or the seventy-third day from admission, and he was not discharged before the 8th of January, or the ninety-sixth day from admission. During a large portion of his convalescence he was excessively fractious and diffieult to manage.

The second case occurred in a female, twenty-one years, of age, who was received into the hospital on the 8th of October, having been then ill for four days. In this case, though the fever was severe, the temperature rising to 106°, the chief symptom was prostration of strength, there being neither spots on the skin nor diarrhœa, and not very marked cerebral disturbance. There could, however, be no doubt that there was considerable intestinal disease; for even when convalescence was apparently fully established, a very small dose of castor oil, given after there had been no evacuation from the bowels for several days, was followed by frequent loose evacuations and a sharp recurrence of fever, which, however, subsided in two or three days. She was convalescent on the 28th of October, or the twentieth day from admission, and the twenty-fourth from the reported time of seizure; and she was discharged on the 19th of November, or the forty-second day from admission.

The third case of typhoid oceurred in a probationer nurse at the hospital, twenty-five years of age. She had been in attendance on two cases of typhiod, in both of which there was diarrhœa, and in one the evacuaticns were passed in bed. Her attendance on these cases commenced about three weeks before her admission into the ward, and ceased about a week before; after which time she was employed in watching a surgical case in which there was a profuse and offensive discharge. About the same time she became poorly, and after four days she was so ill, suffering from diarrhœa and feverish symptoms. as to be incapable of attending to her duties. On the 14th October, or the

fourth day of serious illness, she was admitted into the ward. During the remainder of the attack she had no diarrhœa; indeed. evacuations were only procured by the employment of medicine. There were, however, spots coming out at the time she first came under care, and they continued to appear for ten days. Her temperature was high (103·8°), and she was much prostrated. She became convalesceut on the 11th November, or the twenty-eighth day from her admission into the ward and the thirty-first from the commencement of serious illness; and she was discharged on the 11th December, or the fifty-eighth day from admission.

The fourth case was admitted during protracted couvalescence. The patieut was a girl aged fourteen, who was admitted on the 12th December. and was stated to have suffered from typhoid for four months, without ever having become satisfactorily convalescent. She was excesslvely fractious and impracticable; had a very dry, harsh skin, a high temperature (103·2°), and hectic symptoms. The bowels were confined. Under the use of baths and the inunction of oil, the skin became moist and the symptoms subsided; and she was convalescent on Jan. 6th, or the twenty-fifth day from admission, and was diseharged on thc 23rd of the same month.

The fifth and last case was a very obscure one. The subject of the disease was a young man aged sixteen, employed as a clerk, but who had recently been leading a somewhat dissipated life. He was admitted on the 22nd of Deecmber, and was then stated to have been ill for four days. He had symptoms of active fever, and was delirious, and two days after admission became so violent as to require restraint. In two or three days he was quieter, but not entirely free from delirium. Before his admission he had not had any diarrhœa, but four days after the bowels became much relaxed, and he passed the evacuations in bed. The abdomen also became excessively tender and tumid, and the temperature rose to 103·6°. The breathing was rapid,

and he died exhausted on the 8th January, or the seventeenth day from the time of admission, and the twenty-first day from the reported period of the commencement of illness. There were not any spots at any time on the skin. On examination after death there was found general peritonitis, and a perforation of the ileum had occurred at a point between two and three feet above the cæcum. The mucous membrane was free from disease everywhere except at the seat of perforation and immediately above the ileo-cæcal valve. At the latter point two of the plates of Peyer were very distinct, and the mucous membrane above and around them was slightly reddened and somewhat abraded. As I have before said, the nature of this case was not obvious, hut it seems most probable that it is to be regarded as one of typhoid. Except some little pneumonic exudation, there were no morbid conditions found in the body except those in connexion with the alimentary canal; and though the intestinal disease was, except at the point of perforation, very slight, it is well known that in typhoid there is often no correspondence in intensity between the amount of mischief in the bowel and the degree of constitutional disturbance. Occasionally also perforation occurs in cases in which there is very little intestinal disease. Indeed, Chomel has recorded in his "Clinique Médicalé" a case which is almost the counterpart of this.

The first remark which I have to make in reference to these cases is as to the diagnosis—that it is impossible to distinguish between typhus and typhoid from one or two symptoms, however important such symptoms may be, but that to ascertain the nature of each case we must take into consideration the whole history of the disease, its mode of origin, its course, the symptoms by which it is characterised, and the mode in which the febrile symptoms subside. A case of typhus usually commences suddenly and rapidly progresses, so that the patient is admitted into hospital at an early period, generally before the seventh or eighth day; and usually also the case undergoes a marked amendment,

if there be not any serious local complication, about the fourteenth day. Yet it will be observed that in two of the three cases to which I have referred the time of commencement of the symptoms could not be distinctly ascertained, but the patient had certainly been ill for an unusually long time when admitted. Indeed, in both the eruption had certainly been on the skin for several days when the patient was first seen, and was clearly passing away in the first case. In both of them the period of convalescence was very imperfectly marked, the amendment was very gradual, and the whole attack unusually prolonged. In the third case, though the time of seizure was more clearly ascertained, the period of admission was also unusually late, but the case followed the usual course, and the time of commencement of convalescence was well marked, and the progress to recovery was rapid. It is not uncommon to hear a case pronounced to be typhus because it is characterised by marked symptoms of cerebral disturbance and absence of abdominal disorder, or to be typhoid because the abdominal symptoms are predominant and there is comparatively little cerebral disorder. But nothing can be less to be depended upon than these symptoms as indicating the several forms of disease, and it not very nnfrequently happens that cases confirmatory of this remark are in the hospital at the same time. This was the case some time ago. In one case a middle aged female was admitted, after a few days illness, with symptoms of fever, much prostration of strength, and profuse diarrhœ, but there was not any marked cerebral disorder, and she passed favourably through the attack, the diarrhœa ceased, and in about twenty-one days she was convalescent. Judging from the presence of diarrhœa and the absence of marked cerebral disorder, the case might have been supposed to be one of typhoid, but it was really, as indicated by the general symptoms and the eruptions on the skin, one of typhus. In the other case a young man was admitted after an obscure indisposition of three weeks' duration, with symptoms

of cerebral disturbance, but without diarrhœa or other evidences of abdominal disorder. This case might therefore have readily been mistaken for one of typhus, though in reality typhoid, the diagnosis being established by the appearance of the usual rose rash. Severe cerebral symptoms indeed very frequently occur in the early stage of typhoid, while diarrhœa is occasionally absent. The latter was the case in two out of the five cases referred to, though in one of them the bowels had been relaxed before the patient came under notice, and in the other the tendeney to intestinal disorder was indicated by the undue action of a small dose of mild aperient, even when convalescence appeared well established. The eruptions on the skin, differing as they do in the two forms of fever in the periods at which they make their appearance, the forms which they assume, and the course which they follow, were they of invariable occurrence, would afford a ready and conclusive means of establishing the diagnosis. But though the eruption probably occurs at some period of the attack in all cases of decided typhus, the spots in typhoid are very uncertain, being often absent in cases of otherwise well-marked typhoid. I find that in only thirty-seven out of forty-four fully reported cases of typhoid which have recently occurred, were there any spots on the skin; and it will be recollected that they were absent in two of the cases of which I have spoken—one of them being the most severe of the five cases, and the other a decided though not very severe case.

I have a few remarks to make in reference to the treatment of cases of fever. We are all agreed as to the mportance of carefully regulating the diet of a patient in the active stages of the disease, and of rigidly enforcing his being kept in bed; but I doubt whether, in typhoid more especially, the importance of continuing the same precautions sufficiently long during convalescense is generally realized. Tee frequency with which relapses occur in typhoid is a peculiar feature of the disease, and probably they cannot be entirely prevented; but I believe they gen-

erally result from the patient being allowed to indulge his appetite too freely, or to leave the bed to soon ; and I think that the very small proportion of relapses that have recently occurred in my cases—only two in sixty-five—has been mainly due to the unceysing care whieh I have taken to prevent either of these mistakes being committed. Probably the cessation of the symptoms of active fever indicates the period at which the mischief in the alimentary canal ceases to progress, but after this the ulcers take a long time to heal. I have known a patient die on the eightieth day, and the ulcers to be still not entirely healed. During the time that there are any remains of ulceration it is most important that the bowel should be kept as quiet as possible, and the patient be persistently fed on the lightest and most easily assimilable food, so that no accumulation may take place. For the same reason the food should be given only in small quantities, and at regular intervals. These rules I steadily enforce, however long may be the duration of the attack, while the tongue still continues furred, and there is and diarrhœa, or tenderness or inflation of the abdomen ; and I confine the patient to bed, or at least to the recumbent position, till he has recovered considerable strength. I have known a patient die of perforation when he had apparently so completely recovered as to be allowed to leave the hospital, the untoward event having been caused by his indulging too freely in food, perhaps not of a digestible character. It is also of great importance to avoid exposure to cold during convalescence ; for patients in the weekly state, which after severa typhoid is so very persistent, are very susceptible to cold, and readily suffer from bronchitis or pneumonia. All excitement of mind should also be avoided. I have know a patient, from neglect of proper care in this respect, suffer from acute and fatal cerebral inflammation wheu he seemed to have almost completely recovered.

There is some difference of opinion among practical men as to whether it is better at once to restrain the diarrhœa

in typhoid, or to leave it alone unless very severe. In the early stages of typhoid there is usually diarrhœa. As the case progresses the stools generally become less frequent and more consistant; and towards the end of the attack the bowels are usually confined, and sometimes very obstinately so. This would appear to indicate that the right line of practice is to leave the case alone, unless the diarrhœa be so severe as to imperil the safety of the patient, in which case it should, if possible, be checked. I, however, while refraining from giving astringents in cases of ordinary typhoid, regard the frequency of the evacuations as in part indicating the amount of stimulus and support which should be given to the patient, and I believe that this rule will generally ce found to answer.

When in case of tyyhoid the bowels become confined, much caution is required in the exhibition of aperients; enemata are always safe, and generally will procure sufficient relief; but sometimes, and especially when the patient is taking a fair amount of food, more free evacuation may seem to be required; and yet the mildest aperients may bring back the diarrhœa and cause a relapse. The rule which I generally follow is not to interfere so long as the patient is apparently not suffering from the bowels not being acted upon, and this even though several days should elapse; but if the patient complains much of sense of fulness, or experiences uneasiness or pain, and especially if the abdomen becomes tumid and tender, the bowels must be relieved. Under the circumstances I generally order a dose of calomel and opium. one or two grains of the former to one of the latter, and follow this by a small dose of castor oil and by an enema if necessary, and the effect of one or two doses of this kind is almost always to procure full and satisfactory evacuation, after which the symptoms generally entirely subside. You will recollect that in the case of the nurse the bowels were not acted upon for six days, at the end of which time threatening symptoms appeared, but entirely subsided under the course of treatment which I have men-

tioned. Similar symptoms also occasionally occur during even advanced convalescence from too much food, or food of any improper kind being taken, and they are best treated in the way I have stated.

The last remark which I have to make is in reference to the employment of stimulants in the treatment of fevers. Some years ago, under the influence of teaching which I cannot but regard as mistaken, stimulants were so largely given in fever and other forms of active disease as to constitute almost the whole treatment, and make it often difficult to decide, when patients were seen, how much of their condition was due to the disease under which they laboured, and how much to the treatment employed. Now, however, a more judicious system is followed, and stimulants are less constantly aud freely given. But there seems danger that in the reaction, the discontinuance of the use of stimulants should be carried too far. Believing, as I do, that the abuse of fermented beverages is the greatest social bane in this country, I should have been glad could I conscientiously have done so, to have recommended the entire abandonment of the use of stimulants in the treatment of fever and other forms of disease. To do so would, however, I believe, be to deprive ourselves of one of the greatest means of alleviation which we possess, though one which requires great care in its use. It would be very much more satisfactory if the employment of these and other remedies could be reduced to some definite and scientific rules; and endeavours have been made by the careful analysis of the results of the differnt methods of treatment to deduce such general rules. But the cases which we have to treat are so variable in their character that it is impossible so to classify them as to be sure that the cases compared are really similar and that the results obtained ane to be depended upon as exact. I fear, therefore, that we must be content still to leave to the judicious physician the choice of the means of treatment to be persued in any given case, guided by his knowledge of the disease he has to treat, and

his experience of the results of the means employed in other similar cases. So far as the use of stimulants is concerned in the treatment of fever, it is impossible to lay down any general rules; but I believe them to be eminently beneficial when given when the active stage of disease is subsiding, and the patient's power is beginning to give way, with the view of upholding the strength while the disease is in process of cure. If the patient is much prostrated and the pulse weak, intermittent, or irregular, or abnormally slow, they may confidently be given; and if under their use the patient becomes less restless, the pulse improves in character, and the prostration diminishes, they may safely be persevered with. The amount of stimulus which is required must also be left to the discretion of the practitioner; but generally it is more advantageous if exhibited in small doses, repeated when the effect begins to subside. If a given dose exhibited at certain stated intervals seems to excite the patient, it does not follow that no stimulant is required; it may rather be that the dose is too large and the repetition too frequent. When the patient's strength becomes greatly exhausted, as it often does when the crisis of the disease is passing or passed, the very liberal exhibition of stimulants may be necessary; and as the weakness becomes less and more food is taken, the quantity may be greatly lessened; but I think it is a great mistake to suppose that because the patient can be got to take a large quantity of food, the use of stimulants is unnecessary. Food, as I have before said, may easily be given too freely. The best results ensue from the judicious combination of moderate amounts of food and stimulus, and this is especially the case at the period of early convalescence. In estimating also the desirableness of administering stimulants in any given case, the question to be asked is not simply whether the patient will recover without their use, but whether he will make an equally good and rapid recovery without them? Typhus and typhoid are diseases of very variable severity, and this is especially the case with typhoid, and there are some cases of both

forms which will do very well without any stimulant at all. But, on the other hand, I have not unfrequently seen, in cases of fever which have never been very severe, that the patient will go on from day to day without making any material progress so long as stimulants are withheld, while on the exhibition of a small amount of wine or spirit there has been a marked and quite unmistakeable improvement in the condition of the patient, and the case has afterwards steadily progressed to recovery. What I would wish to impress upon you is, not that you should make up your minds to give or not to give stimulants in cases of fever, but that you should hold yourselves free to have recourse to them, or not to use them, according to the apparent requirements of the several cases which you have to treat. There can be no worse fault in medical practice than to adopt a hard-and-fast rule as to the plans of treatment or special remedies to be employed in any form of disease. You should endeavour to make yourselves fully acquainted with the nature of the disease you have to treat and the condition of your patient, and then prescribe the course of treatment which you think will most conduce to his recovery.—*The Lancet.*

CANADA

Medical and Surgical Journal.

MONTREAL, JUNE, 1874.

"POOR MARGERY."

These two words which carry us back in imagination to the "Bridge of Sighs" have formed the heading to several articles recently appearing in our public papers concerning a tragedy which has just taken place in our midst. Margery Sleman was a poor girl who, having become somewhat deranged, was, as is usual in such cases, committed to the common jail to await either improvement in her mental condition or else final commitment to an asylum. In this wretched place she was put into a ward under the charge of a notorious woman. After the lapse of some time, being apparently better she was discharged upon the recommendation of the jail physician. She was afterwards seen by a lady who was interested in her, and by whom she was directed to a place where it was thought she would get a situation. From this time nothing was seen of her, nor could her whereabouts be ascertained, although it is said she was missed and search made for her by her friends. Finally, the body of a girl was discovered several days after in a shed behind the mountain, and proved to be that of "poor Margery." An inquest was held, and a verdict of "found dead without marks of violence," returned. We do not intend to notice the conduct of the inquest further than to draw attention to the fact that, though it was stated that the girl had previously threatened to destroy herself by poison, yet no post-mortem examination was ordered by the Coroner, and no evidence of any kind was adduced to show

by what means she had come by her death. Unfortunately it seems to be quite a useless task to urge upon our Coroner the real performance of his important duties, and such meaningless verdicts as that above given are of constant occurrence, the presiding officer seeming to be able by some means to set at defiance public opinion. But the point to which we would draw the attention of our readers, especially those in this Province and in this city, is the horrible results of our present means (or rather want of means) of dealing with the insane poor. Is it not shocking and revolting to all our natural instincts, our ordinary feelings of humanity, as well as contrary to our medical sense of reason, that an imbecile girl should be closely confined in a prison ward for the purpose of giving her mind a chance to improve? Is it not clear that we are thus voluntarily and basely taking away from her whatever remaining chance there may be of her intellect recovering? Is it not the acme of cruelty for a civilized community to treat as a criminal and make to live with criminals one whose only fault is to have been afflicted by the Divine hand? It is said, this confinement is but temporary and cannot be avoided: but is not thus that precious time worse than lost which, if devoted under the eye of an experienced physician to appropriate measures for relief might have been crowned with success? To our own shame, and to the special disgrace of our rulers be it said, this subject is not new. Time and again have cases of this kind, involving the greatest hardships, been commented upon both in this Journal and in the public prints, but hitherto all our efforts have resulted in vain; no action has been taken, and the evil still exists as a standing slur upon our boasted civilization. The startling revelations that have been again brought prominently to light owing to the tragic story of this poor girl's imprisonment, dismissal, and final lonely death, have served at last to rouse the people to a consciousness of the glaring ills that are allowed to remain unattended to in our midst. A public meeting has been held, and the cruelty of sending lunatics to jail, the

utterly unsuitable nature of the accommodation there afforded, the immoral results sure to follow from the companionship allowed, have been unsparingly denounced, and an urgent call is made for the speedy intervention of some appropriate measures to finally put a stop to the perpetration of this sin. We trust this agitation will not be allowed to die away, but will be proceeded with until some satisfactory action has been taken. Then, indeed, "poor Margery," will nôt not have died in vain.

A SMALL-POX HOSPITAL.

Again and again we ask, are we to have a small-pox Hospital?

The necessity for a distinct and separate institution for the segregation and isolated treatment of cases of small-pox is becoming every day more urgent. On a former occasion we alluded to the fact of the spread of small-pox to the general wards of the Montreal Hospital although every precaution was taken which was at that time deemed possible. Our exertions to get rid of the small-pox Hospital on that occasion resulted in what the Committee of management considered a sure and certain remedy.

The Fever Hospital was divided into two compartments by a brick wall. A door of entrance was broken into that part of the building farthest from the main building, a separate staff of Physicians was appointed, and every precaution resorted to with a view of preventing the spread of the disease. What have we now to report? signal failure. The disease has spread and we can report two cases of infection.

During the past winter a lady was sent into town with her little boy to have an operation performed upon him. She occupied a private ward and all went on well. She returned home with her boy after a residence of some weeks in the

Hospital. Four days after her return, this mother of a large family living in a healthy locality in the townships where no small-pox existed at the time, broke out with that loathsome disease and the result to her is, at the time we write, a question of God's mercy.

A second case comes to hand, an assistant nurse in one of the Surgical wards, takes the disease and has to be transferred to the small-pox department.

These are cases we can vouch for, there may be others of which we have no knowledge and in reporting them we must repeat the warning formerly given to the governing body of this institution. That in continuing to admit cases of small-pox into the present building allotted to that class of patients, they are marring the usefulness of one of the noblest charities on the continent.

MONTREAL GENERAL HOSPITAL.

We regret to announce the resignation as attending Physician to this hospital of Drs. Scott and Howard, two gentlemen who have faithfully and zealously performed their duties in connection with this charity for over a quarter of a century. In accepting these resignations, which were submitted at the Annual Meeting of the Board of Governors, the Board unanimously passed a vote of thanks to Drs. Scott and Howard for their long continued and valuable services—and at the same time requested them to continue as members of the Medical Staff act as Consulting Physicians to the Hospital. Subsequently the following gentlemen were elected as Attending Physicans to fill the vacancies created by the above resignations viz: Robert T. Godfrey, M.D., Professor of Surgery University of Bishop's College, and Thomas G. Roddick, M.D., Demonstrator of Anatomy, McGill University. We congratulale these gentlemen on their successful candidature and also the hospital authorities on

having secured the services of two gentlemen in whose hands we feel the best interests of the institution will be served.

John D. Cline, B.A., M.D., of Cornwall, Ont., has been appointed House Apothecary to the Montreal General Hospital. We beg to congratulate Dr. Cline upon this appointment, which further success has so closely followed upon his taking the Holmes' Gold medal at McGill University. We have been pleased to observe the increased value placed upon these important posts, the number of competitors for the resident appointments having been much larger, and the interest excited in the contests for them much greater than usual. Being bestowed only upon the most deserving men, the chance of one of these internal posts in the Hospital offers very great inducements for diligence on the part of students who may be intending competitors.

We have been given to understand that it is the intention of the Managing Committee to recommend that henceforth each of the three resident appointments shall be made only for one or two years, thus affording the great advantages of the institution to a much larger number of commencing practitioners. This scheme we would heartily favor. It is the one which is acted upon by nearly all the British and American Hospitals, and as far as we know is universally approved of.

COLLEGE OF PHYSICIANS AND SURGEONS OF LOWER CANADA.

The Semi-annual meeting of the Board of Governors of the College of Physicians of Lower Canada, was held the 12th of May instant, in the rooms of the Jacques Cartier Normal School, Montreal. The following members were present:—Drs. Scott, Peltier, Howard, Rottot, Fenwick, Trudel, Robillard, Jackson, Blanchet, Russel, Tessier, Chamberlain, Gibson, Church, Weilbrener, Brigham, Duchesneau, Marmette, Tetu, Ross, Hamilton, Gilbert.

Dr. Hingston was elected Governor in the place of Dr. Smallwood, deceased. Drs. Ross and Roddick were elected members of the College.

The following gentlemen were admitted to the study of medicine after examination :—

James Ward, James Leprohon, Gaspard Turcot, Phillippe Gaillardet, Isaie Sylvestre, Jos. Robillard, Olivier Charbonneau, Honoré Massé, A. Lapalme. Joseph Sylvain, Achille Gauvreau, Israel Joncas, Arthur Vincelette, Joseph Etienne Bolduc, Adjutor Samson; Thomas Lambert, A. Methot, Edmond Barry, and A. Poulin. Mr. S. Levy was admitted to the study of Pharmacy:

The license of the College was given to the following graduates :—Arthur Patrick Shee, M.D., Laval; Phillippe Charest, M.D.. Do.; Edwin Turcot, M.D., do.; Charles Clement, M.D., do.; Louis Honoré Labrecque, M.D., do.; Samuel Pouliot, M.D., do.; Arthur Lyon, M.D., McGill; George Henry Christie, M.D., do.; Walter Sutherland M.D., do., James C. Cameron, M.D., do.; William A. Molson, M.D., do.; Alexander Proudfoot, M.D., do.; Léonidas Brunet, M.D., Victoria; Edmond Ouimet, M.D., do.; Joseph E. Berthelot, M.D., do.; Sévérin Lachapelle, M.D., do.; Herménégilde Jeannotte, M.D., do.; Louis D. Hébert, M.D. do.; Joseph Edward Scallon, M.D., do.; Arthur Roy, M.D. do; Charles Demers, M.D., do.; Louis Coyteux Prevost, M.D., do; Alfred Majeau, M.D., do.: Joel Laurendeau, M.D., do.; Frs, X. Mousseau, M.D., do.; Stanislas Lamoureux, M.D., do.; Avila Demers, M.D., do.; Télesphore O. Globensky Wilson, M.D., do.; Joseph Roy, M.D., do.; Alexander Germain, M.D., do.; Victor Moquin, M.D., do.; Théodore Phénix, M.D., do.; Louis Laberge, M.D., do.; Eugene Trudel, M.D., do.; Alfred Brossois, M.D., do.; Edward Férron, M.D., do.; Charles Desorcy, M.D., do.; Victor Elz. Brouillet, M.D., do.; Arthur Duval, M.D., do.; Israel Lemieux, C.M., M.D., Lennoxville · Asroum Duclos, C.M., M.D., do.; David Alexander Hart, C. M., M.D., do.; Joseph Campbell, M.D., Queen's College; Francis Rourk, M. D., do.

Alexander Munro was admitted to the practice of pharmacy after examination.

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The Montreal medical journal

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